
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Amendment No. 6
to
FORM S-1
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

NewLink Genetics Corporation

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	541700 (Primary Standard Industrial Classification Code Number)	42-1491350 (I.R.S. Employer Identification Number)
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**2503 South Loop Drive
Ames, IA 50010
(515) 296-5555**

(Address, including zip code, and telephone number, including
area code, of registrant's principal executive offices)

CHARLES J. LINK, JR.
Chief Executive Officer
NewLink Genetics Corporation
2503 South Loop Drive
Ames, IA 50010
(515) 296-5555

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

James C.T. Linfield
Brent D. Fassett
Cooley LLP
380 Interlocken Crescent
Broomfield, CO 80021
(720) 566-4000

Geoffrey E. Liebmann
Cahill Gordon & Reindel LLP
Eighty Pine Street
New York, NY 10005
(212) 701-3000

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 under the Securities Exchange Act of 1934. (Check one):

Large Accelerated Filer

Accelerated Filer

Non-accelerated Filer

Smaller Reporting Company

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)
Common Stock, \$0.01 par value per share	\$86,250,000	\$6,150.00(3)

- (1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.
- (2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.
- (3) Previously paid.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other expenses of issuance and distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, paid or payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, or FINRA, filing fee and the listing fee for the NASDAQ Global Market.

	Amount Paid or to be Paid
SEC registration fee	\$ 6,150
FINRA filing fee	9,125
The NASDAQ Global Market listing fee	125,000
Blue sky qualification fees and expenses	5,000
Printing expenses	375,000
Legal fees and expenses	1,500,000
Accounting fees and expenses	825,000
Transfer agent and registrar fees and expenses	5,000
Miscellaneous expenses	24,725
Total	<u>\$ 2,875,000</u>

Item 14. Indemnification of directors and officers.

We are incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. Our amended and restated certificate of incorporation and amended and restated bylaws, each of which will

become effective upon the completion of this offering, provide for the indemnification of our directors and officers to the fullest extent permitted under the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

Our amended and restated certificate of incorporation and amended and restated bylaws include such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by us upon delivery to us of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by us.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the Board of Directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the Delaware General Corporation Law, we have entered into indemnity agreements with each of our directors and executive officers, that require us to indemnify such persons against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines, settlements and other amounts incurred (including expenses of a derivative action) in connection with any action, suit or proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director, an officer or an employee of NewLink or any of its affiliated enterprises, provided that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to our best interests and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, or otherwise.

We have entered into an underwriting agreement which provides that the underwriters are obligated, under some circumstances, to indemnify our directors, officers and controlling persons against specified liabilities, including liabilities under the Securities Act.

Reference is made to the following documents filed as exhibits to this registration statement regarding relevant indemnification provisions described above and elsewhere herein:

<u>Exhibit Document</u>	<u>Number</u>
Form of Underwriting Agreement	1.1
Form of Amended and Restated Certificate of Incorporation to be effective upon completion of this offering	3.2
Form of Amended and Restated Bylaws to be effective upon completion of this offering	3.4
Form of Indemnity Agreement	10.50

Item 15. Recent sales of unregistered securities.

The following list sets forth information regarding all securities sold by us in the three years preceding the filing of this Registration Statement:

- (1) Between February 8, 2008 and December 17, 2009, in connection with our Series C preferred stock financing, we issued and sold an aggregate of 6,000,000 shares of Series C preferred stock to 142 accredited investors at 33 closings, at a purchase price of \$5.00 per share, for aggregate consideration of \$30.0 million. Upon completion of this offering, these shares will convert into 2,881,912 shares of common stock.
- (2) On July 17, 2009, in connection with our Series D preferred stock financing, we issued and sold an aggregate of 1,500,000 shares of Series D preferred stock to one accredited investor at one closing, at a purchase price of \$5.00 per share, for aggregate consideration of \$7.5 million. Upon completion of this offering, these shares will convert into 720,478 shares of common stock.
- (3) Between December 1, 2010 and December 13, 2010, in connection with our Series E preferred stock financing, we issued and sold an aggregate of 248,320 shares of Series E preferred stock to 39 accredited investors at two closings, at a purchase price of \$31.25 per share, for aggregate consideration of \$7.8 million. Upon completion of this offering, these shares will convert into 829,947 shares of common stock.
- (4) On July 17, 2009, we issued a warrant to Midwest Oilseeds, Inc. to purchase an aggregate of 178,571 shares of our common stock, with an initial exercise price of \$15.12 per share. On October 7, 2010, this warrant was amended and on October 21, 2010 the warrant was exercised for 178,571 shares of common stock at an aggregate exercise price of \$2.0 million.
- (5) From October 30, 2000 to August 6, 2008, we granted stock options under our 2000 Equity Incentive Plan to purchase 808,168 shares of common stock (net of expirations and cancellations) to our employees, directors and consultants, having exercise prices ranging from \$0.53 to \$7.14 per share. Of these, options to purchase 226,229 shares of common stock have been exercised through December 31, 2010, for aggregate consideration of \$141,543, at exercise prices ranging from \$0.53 to \$3.68 per share. In addition, we granted stock awards for 18,470 shares of our common stock in exchange for services rendered.
- (6) From May 13, 2009 to December 9, 2010, we granted stock options under our 2009 Equity Incentive Plan to purchase 2,477,738 shares of common stock (net of expirations and cancellations) to our employees, directors and consultants, having exercise prices ranging from \$2.10 to \$7.16 per share. Of these, none of the options to purchase shares of common stock have been exercised through December 31, 2010.
- (7) From May 13, 2009 to December 4, 2009, we granted stock options under our 2009 Equity Incentive Plan to purchase 1,161,083 shares of common stock (net of expirations and cancellations) to Dr. Charles Link, having exercise prices ranging from \$2.10 to \$4.20 per share.

Of these, none of the options to purchase shares of common stock have been exercised through December 31, 2010.

- (8) On September 3, 2010, we issued 23,810 shares of our common stock to Reconstitute, LLC, pursuant to the terms of a Termination Agreement by which we terminated a license agreement with Reconstitute. The stock was issued in consideration of Reconstitute's performance of certain provisions of the license agreement prior to termination and Reconstitute's agreement to terminate the license agreement.
- (9) On July 29, 2010, we issued 173,469 shares of our common stock to nine accredited investors pursuant to the July 21, 2005 purchase agreement with the shareholders of OncoRx Corporation. This issuance was the third and final installment of shares payable under the July 21, 2005 purchase agreement.
- (10) On January 7, 2011, and August 12, 2011, we issued 276,304 shares of our Series E preferred in connection with the acquisition of BioProtection Systems Corporation.
- (11) On June 20, 2011, we issued and sold to an investor an additional 160,000 shares of Series E preferred stock at a purchase price of \$31.25 per share, which resulted in gross proceeds of \$5.0 million.
- (12) On August 31, 2011, we issued 20,864 shares of our common stock as dividends on shares of our Series AA preferred stock.

The offers, sales and issuances of the securities described in paragraphs (1), (2), (3), (4), (7), (8), (9) and (10) were deemed to be exempt from registration under the Securities Act in reliance on Rule 506 of Regulation D in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited investor under Rule 501 of Regulation D.

The offers, sales and issuances of the securities described in paragraphs (5) and (6) were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of such securities were our employees, directors or bona fide consultants and received the securities under our 2000 Equity Incentive Plan or 2009 Equity Incentive Plan. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

Item 16. Exhibits and Financial Statement Schedules

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
1.1	Form of Underwriting Agreement
3.1(1)	Restated Certificate of Incorporation filed on November 23, 2010
3.2	Form of Amended and Restated Certificate of Incorporation to be effective upon completion of this offering
3.3(1)	Bylaws, as currently in effect
3.4	Form of Amended and Restated Bylaws to be effective upon completion of this offering

Exhibit Number	Description
3.5(4)	Certificate of Amendment to Restated Certificate of Incorporation filed on September 15, 2011
3.6(5)	Certificate of Amendment to Restated Certificate of Incorporation filed on October 25, 2011
4.1(5)	Form of the Registrant's Common Stock Certificate
4.2(1)	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6
(4)	
5.1	Opinion of Cooley LLP
10.1	Form of Lock-up Agreement
10.2†(1)	2000 Equity Incentive Plan
10.3†(1)	Form of Stock Option Agreement under 2000 Equity Incentive Plan
10.4†(1)	Form of Stock Option Grant Notice under 2000 Equity Incentive Plan
10.5†(1)	Form of Stock Bonus Agreement under 2000 Equity Incentive Plan
10.6†(1)	Amended and Restated 2009 Equity Incentive Plan
10.7†(1)	Form of Stock Option Agreement under 2009 Equity Incentive Plan
10.8†(1)	Form of Stock Option Grant Notice under 2009 Equity Incentive Plan
10.9†(1)	2010 Employee Stock Purchase Plan
10.10†	2010 Non-Employee Directors' Stock Award Plan
10.11†	Form of Indemnity Agreement by and between the Registrant and its directors and executive officers
10.12†(1)	Employment Agreement, dated as of December 6, 2010, by and between the Registrant and Charles J. Link, Jr.
10.13†(1)	Employment Agreement, dated as of November 22, 2010, by and between the Registrant and Nicholas N. Vahanian
10.14†(1)	Employment Agreement, dated as of June 26, 2008, by and between the Registrant and Gordon H. Link, Jr.
10.15†(1)	Employment Agreement, dated as of November 22, 2010, by and between the Registrant and Gordon H. Link, Jr.
10.16†(1)	Employment Agreement, dated as of November 22, 2010, by and between the Registrant and Kenneth Lynn
10.17†(1)	Employment Agreement, dated as of November 22, 2010, by and between the Registrant and W. Jay Ramsey
10.18†(1)	Form of Employee Proprietary Information and Inventions Agreement
10.19†(2)	Promissory Note dated May 2, 2008 by and between the Registrant and Charles Link
10.20†(2)	Promissory Note dated April 18, 2000 by and between the Registrant and Nicholas Vahanian
10.21†(2)	Promissory Note dated August 20, 2008 by and between the Registrant and Nicholas Vahanian
10.22†(2)	Promissory Note dated July 2008 by and between the Registrant and Gordon Link
10.23†(2)	Amendment Agreement dated July 1, 2010 by and between the Registrant and Charles Link
10.24†(2)	Amendment Agreement dated July 1, 2010 by and between the Registrant and Nicholas Vahanian
10.25†(2)	Acknowledgment Agreement dated November 24, 2010 by and between the Registrant and Charles Link
10.26†(2)	Acknowledgment Agreement dated November 24, 2010 by and between the Registrant and Nicholas Vahanian
10.27†(2)	Acknowledgment Agreement dated November 24, 2010 by and between the Registrant and Gordon Link
10.28†(2)	Acknowledgment Agreement dated November 24, 2010 by and between BioProtection Systems Corporation and Charles Link

<u>Exhibit Number</u>	<u>Description</u>
10.29†(2)	Acknowledgment Agreement dated November 23, 2010 by and between BioProtection Systems Corporation and Nicholas Vahanian
10.30*	License Agreement dated July 7, 2005 by and between the Registrant and Lankenau Institute for Medical Research
10.31*	First Amendment to License Agreement dated May 22, 2006 by and between the Registrant and Lankenau Institute for Medical Research
10.32*	Second Amendment to License Agreement September 11, 2007 by and between the Registrant and Lankenau Institute for Medical Research
10.33*	Exclusive License Agreement executed December 21, 2007 by and between the Registrant and Lankenau Institute for Medical Research
10.34*	Exclusive License Agreement effective April 23, 2009 by and between the Registrant and Lankenau Institute for Medical Research
10.35*	License Agreement dated February 27, 2007 by and between the Registrant and University of British Columbia
10.36*	License Agreement dated October 13, 2004 by and between the Registrant and Drexel University
10.37*	License Agreement dated August 2, 2001 by and between the Registrant and Central Iowa Health System
10.38*	Letter of Intent for Cooperative Research and Development Agreement (CRADA #2166) dated May 7, 2007 by and between the Registrant and National Cancer Institute
10.39(4)	Amendment No. 1 to Letter of Intent for CRADA #2166 dated January 17, 2008 by and between the Registrant and National Cancer Institute
10.40(4)	Amendment No. 2 to Letter of Intent for CRADA #2166 dated July 7, 2008 by and between the Registrant and National Cancer Institute
10.41(4)	Amendment No. 3 to Letter of Intent for CRADA #2166 dated March 24, 2009 by and between the Registrant and National Cancer Institute
10.42(4)	Amendment No. 4 to Letter of Intent for CRADA #2166 dated October 28, 2009 by and between the Registrant and National Cancer Institute
10.43(4)	Amendment No. 5 to Letter of Intent for CRADA #2166 dated December 16, 2009 by and between the Registrant and National Cancer Institute
10.44(4)	Amendment No. 6 to Letter of Intent for CRADA #2166 dated June 29, 2010 by and between the Registrant and National Cancer Institute
10.45(4)	Amendment No. 7 to Letter of Intent for CRADA #2166 dated November 26, 2010 by and between the Registrant and National Cancer Institute
10.46*	License Agreement dated September 13, 2005 by and between the Registrant and Medical College of Georgia Research Institute, Inc.
10.47*	First Amendment to License Agreement dated April 27, 2006 by and between the Registrant and Medical College of Georgia Research Institute, Inc.
10.48*	Second Amendment to License Agreement dated April 27, 2006 by and between the Registrant and Medical College of Georgia Research Institute, Inc.
10.49*	Third Amendment to License Agreement dated February 13, 2007 by and between the Registrant and Medical College of Georgia Research Institute, Inc.
10.50*	Patent License Agreement dated March 1, 2006 by and between the Registrant and Bresagen Xenograft Marketing Ltd.
10.51(1)	Lease dated September 1, 2000 by and between the Registrant and Iowa State University Research Park Corporation
10.52(1)	Sublease Agreement effective February 1, 2001 by and between the Registrant and Iowa State Innovation System
10.53(1)	Memorandum of Agreement dated December 6, 2005 by and between the Registrant and Iowa State University Research Park Corporation

<u>Exhibit Number</u>	<u>Description</u>
10.54(1)	Memorandum of Agreement dated April 13, 2006 by and between the Registrant and Iowa State University Research Park Corporation
10.55(1)	Memorandum of Agreement dated February 20, 2008 by and between the Registrant and Iowa State University Research Park Corporation
10.56(1)	Memorandum of Agreement dated May 1, 2009 by and between the Registrant and Iowa State University Research Park Corporation
10.57(1)	Memorandum of Agreement dated March 24, 2010 by and between the Registrant and Iowa State University Research Park Corporation
10.58(1)	Lease dated September 30, 2009 by and between the Registrant and Iowa State University Research Park Corporation
10.59(1)	Promissory Note executed in 2009 by and between the Registrant and Iowa State University Research Park Corporation
10.60(1)	Forgivable Loan Agreement dated March 10, 2010 by and between the Registrant and City of Ames, Iowa
10.61(1)	Iowa Values Fund Agreement dated March 18, 2005 by and between the Registrant and Iowa Department of Economic Development
10.62(1)	Contract Amendment dated August 19, 2010 between the Registrant and Iowa Department of Economic Development
10.63(1)	Master Contract dated December 29, 2005 by and between the Registrant and Iowa Department of Economic Development
10.64(1)	Contract Amendment dated April 21, 2009 between the Registrant and Iowa Department of Economic Development
10.65(1)	Contract Amendment dated August 19, 2010 between the Registrant and Iowa Department of Economic Development
10.66*	Exclusive License Agreement dated July 29, 2008 by and between the Regents of the University of California and BioProtection Systems Corporation
10.67*	Sole License Agreement executed May 4, 2010 by and between Her Majesty the Queen in Right of Canada and BioProtection Systems Corporation
10.68(2)	Contract No. W911NF-08-C-0044 dated May 5, 2008 by and between BioProtection Systems Corporation and the United States Department of Defense
10.69(2)	Amendment to Contract No. W911NF-08-C-0044 dated February 12, 2009 by and between BioProtection Systems Corporation and the United States Department of Defense
10.70*	Contract No. HDTRA1-09-C-0014 dated September 25, 2009 by and between BioProtection Systems Corporation and the United States Department of Defense
10.71(2)	Contract No. W911NF-09-C-0072 dated July 31, 2009 by and between BioProtection Systems Corporation and the United States Department of Defense
10.72(2)	Amendment to Contract No. W911NF-09-C-0072 dated April 21, 2010 by and between BioProtection Systems Corporation and the United States Department of Defense
10.73(2)	Grant Number 5U01AI066327-05 issued August 26, 2009 by and between BioProtection Systems Corporation and the National Institutes of Health
10.74(2)	Grant Number 1R43AI084350-01A1 issued April 6, 2010 by and between BioProtection Systems Corporation and the National Institutes of Health
10.75(2)	Agreement and Plan of Merger dated December 1, 2010 by and between the Registrant, BPS Merger Sub, Inc., BioProtection Systems Corporation and BPS Stockholder Representative, LLC
10.76(2)	Certificate of Merger of BPS Merger Sub, Inc. into BioProtection Systems Corporation filed on January 7, 2011
10.77(3)	Contract Amendment effective February 17, 2011 between the Registrant and Iowa Department of Economic Development

Exhibit Number	Description
10.78(3)	Contract Amendment effective February 17, 2011 between the Registrant and Iowa Department of Economic Development
10.79(4)	Amendment No. 8 to Letter of Intent for CRADA #2166 dated June 2, 2011 by and between the Registrant and National Cancer Institute
10.80(4)	Amendment of Contract No. HDTRA1-09-C-0014 dated September 20, 2011 by and between BioProtection Systems Corporation and the United States Department of Defense
10.81(4)	Grant Number 5R43AI084350-02 issued March 24, 2011 by and between BioProtection Systems Corporation and the National Institutes of Health
10.82(5)	Lease dated August 10, 2005 by and between BioProtection Systems Corporation and Iowa State University Research Park Corporation
10.83(5)	Memorandum of Agreement dated September 29, 2011 by and between BioProtection Systems Corporation and Iowa State University Research Park Corporation
10.84(5)	Memorandum of Agreement dated September 29, 2011 by and between the Registrant and Iowa State University Research Park Corporation
21.1(1)	Subsidiary Information
23.1(5)	Consent of KPMG LLP, independent registered public accounting firm
23.2(2)	Consent of the Mentor Group, Inc., valuation specialist
23.3	Consent of Cooley LLP (included in Exhibit 5.1)
24.1(1)	Power of Attorney
24.2(3)	Power of Attorney
24.3	Power of Attorney

(1) Filed with the Registrant's Registration Statement on Form S-1 on December 21, 2010

(2) Filed with the Registrant's Amendment No. 1 to the Registration Statement on Form S-1 on February 28, 2011

(3) Filed with the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 on September 14, 2011

(4) Filed with the Registrant's Amendment No. 4 to the Registration Statement on Form S-1 on October 4, 2011

(5) Filed with the Registrant's Amendment No. 5 to the Registration Statement on Form S-1 on October 26, 2011.

† Indicates management contract or compensatory plan

* Indicates confidential treatment has been requested with respect to specific portions of this exhibit. Omitted portions have been filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) Financial statement schedule.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or notes.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 6 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ames, State of Iowa, on November 8, 2011.

NEWLINK GENETICS CORPORATION

By: /s/ CHARLES J. LINK, JR.

Charles J. Link, Jr.
Chief Executive Officer, Chairman of the Board

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 6 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ CHARLES J. LINK, JR.</u> Charles J. Link, Jr.	Chief Executive Officer, Chairman of the Board and Director (<i>Principal Executive Officer</i>)	November 8, 2011
<u>/s/ GORDON H. LINK, JR.</u> Gordon H. Link, Jr.	Chief Financial Officer and Secretary (<i>Principal Financial and Accounting Officer</i>)	November 8, 2011
<u>*</u>		
<u>Thomas A. Raffin</u>	Director	November 8, 2011
<u>*</u>		
<u>Ernest J. Talarico, III</u>	Director	November 8, 2011
<u>*</u>		
<u>David J. Lundquist</u>	Director	November 8, 2011
<u>*</u>		
<u>Sarah Alexander</u>	Director	November 8, 2011
<u>*</u>		
<u>Joseph Saluri</u>	Director	November 8, 2011
<u>*</u>		
<u>Paul R. Edick</u>	Director	November 8, 2011

*By: /s/ GORDON H. LINK, JR.

Gordon H. Link, Jr.,
Attorney-in-Fact

QuickLinks

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

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EXHIBIT INDEX

[Item 17. Undertakings.](#)

SIGNATURES

NEWLINK GENETICS CORPORATION
 [],000 Shares of Common Stock
UNDERWRITING AGREEMENT

[], 2011

STIFEL, NICOLAUS & COMPANY, INCORPORATED
 CANACCORD GENUITY INC.

As Representatives of the several Underwriters
 c/o Stifel, Nicolaus & Company, Incorporated
 One Montgomery Street
 Suite 3700
 San Francisco, CA 94104

Ladies and Gentlemen:

NewLink Genetics Corporation, a Delaware corporation (the "Company"), confirms its agreement with Stifel, Nicolaus & Company, Incorporated ("Stifel"), Canaccord Genuity Inc. ("Canaccord") and each of the other Underwriters named in Exhibit A hereto (collectively, the "Underwriters," which term shall also include any underwriter substituted as hereinafter provided in Section 10 hereof), for whom Stifel and Canaccord are acting as representatives (collectively, in such capacity, the "Representatives"), with respect to the issue and sale by the Company of a total of [] shares (the "Initial Securities") of the Company's common stock, par value \$[] per share (the "Common Stock"), and the purchase by the Underwriters, acting severally and not jointly, of the respective numbers of Initial Securities set forth in said Exhibit A hereto, and with respect to the grant by the Company to the Underwriters, acting severally and not jointly, of the option described in Section 2(b) hereof to purchase all or any part of [] additional shares of Common Stock to cover over-allotments, if any. The Initial Securities to be purchased by the Underwriters and all or any part of the [] shares of Common Stock subject to the option described in Section 2(b) hereof (the "Option Securities") are hereinafter called, collectively, the "Securities." Certain terms used in this Agreement are defined in Section 15 hereof.

The Company understands that the Underwriters propose to make a public offering of the Securities as soon as the Representatives deem advisable after this Agreement has been executed and delivered.

The Company and the Underwriters agree that up to [ten percent (10)]% of the Initial Securities to be purchased by the Underwriters (the "Reserved Securities") shall be reserved for sale by the Underwriters at the initial public offering price to persons who are directors, officers or employees or who are designated by the Company (the "Reserved Security Offerees") as part of the distribution of the Securities by the Underwriters, subject to the terms of this Agreement, the applicable rules, regulations and interpretations of FINRA and all other applicable laws, rules and regulations. To the extent that any such Reserved Securities are not orally confirmed for purchase by any such Reserved Security Offeree before :00 .M. (New York City time)

on the first trading day on the Nasdaq Global Market after the date of this Agreement, such Reserved Securities may, at the sole and absolute discretion of the Representatives, be offered to the public as part of the public offering contemplated hereby or offered or sold to any other Reserved Security Offerees.

Promptly after the execution of this Agreement, the Company will prepare and file with the Commission a prospectus in accordance with the provisions of Rule 430A and Rule 424(b) and the Company has previously advised you of all information (financial and other) that will be set forth therein. Such prospectus, in the form first furnished to the Underwriters for use in connection with the offering of the Securities (whether to meet the request of purchasers pursuant to Rule 173(d) or otherwise) is herein called the "Prospectus."

Prior to the date of this Agreement (in the case of clauses (a), (b), (c), (f) and (g) below) and prior to (in the case of clause (d) below) or concurrently with (in the case of clause (e) below) the purchase of the Initial Securities by the Underwriters on the Closing Date referred to in Section 2(c):

(a) the Company's 2009 Equity Incentive Plan shall have been amended and restated, together with all other agreements, certificates, documents and instruments necessary to implement such plan (including, without limitation, stock option agreements and other related agreements to be executed by option holders or others, in each case, in the forms heretofore provided to the Representatives (collectively, the "Amended and Restated Equity Incentive Plan")), shall have been executed and delivered by all applicable persons, and such Amended and Restated Equity Incentive Plan shall be in full force and effect as of the date hereof (the "Equity Incentive Plan Amendment"),

(b) the Company's charter and by-laws shall have been amended and restated and such amended and restated charter shall have been filed with the Secretary of State of the State of Delaware (collectively, the "Amendment and Restatement"),

(c) all of the outstanding shares of the Company's Preferred Stock shall have been automatically converted into shares of Common Stock (the "Preferred Stock Conversion"), and all accrued and unpaid dividends in respect of the Series AA Preferred Stock payable in common shares in accordance with the terms thereof shall have been issued to the holders of shares of Series AA Preferred Stock (the "Series AA Preferred Stock Dividend"),

(d) the Company shall have issued and sold shares of its Series E Preferred Stock for gross proceeds of at least \$7.8 million (the "Series E Financing"), and

(e) outstanding warrants to purchase 375,000 shares of Common Stock shall have been exercised for an aggregate exercise price of \$2.0 million (collectively, the "Warrant Transaction"),

all on the terms contemplated by the Statutory Prospectus and the Prospectus. The Equity Incentive Plan Amendment, the Amendment and Restatement, the Preferred Stock Conversion, the Series AA Preferred Stock Dividend, the Series E Financing and the Warrant Transaction are hereinafter called, collectively, the “Pre-Closing Transactions.”

SECTION 1. Representations and Warranties.

(a) *Representations and Warranties by the Company.* The Company represents and warrants to each Underwriter as of the date hereof, as of the Applicable Time, as of the Closing Date referred to in Section 2(c) hereof, and as of each Option Closing Date (if any) referred to in Section 2(b) hereof, and agrees with each Underwriter, as follows:

(1) Compliance with Registration Requirements. The Securities have been duly registered under the 1933 Act pursuant to the Registration Statement. Each of the Initial Registration Statement and any Rule 462(b) Registration Statement has become effective under the 1933 Act and no stop order suspending the effectiveness of the Initial Registration Statement or any Rule 462(b) Registration Statement has been issued under the 1933 Act and no proceedings for that purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated by the Commission, and any request on the part of the Commission for additional information has been complied with.

At the respective times the Initial Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments thereto became or become effective and at the Closing Date (and, if any Option Securities are purchased, at the applicable Option Closing Date), the Initial Registration Statement, any Rule 462(b) Registration Statement and any amendments and supplements thereto complied and will comply in all material respects with the applicable requirements of the 1933 Act and the 1933 Act Regulations and did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. Neither the Prospectus nor any amendments or supplements thereto, as of their respective dates, at the Closing Date (and, if any Option Securities are purchased, at the applicable Option Closing Date), and at any time when a prospectus is required by applicable law to be delivered in connection with sales of Securities (including, without limitation, pursuant to Rule 173(d)), included or will include an untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

As of the Applicable Time, neither (a) any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the Statutory Prospectus and the information included on Exhibit G hereto, all considered together (collectively, the “First General Disclosure Package”), nor (b) if applicable, any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the Statutory Prospectus and the Issuer Pricing Free Writing Prospectus, all considered together (collectively, the “Second General Disclosure Package”; the First General Disclosure Package and the Second General

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Disclosure Package (if any) are hereinafter called, collectively, the “General Disclosure Packages” and, individually, a “General Disclosure Package,” provided that, if an Issuer Pricing Free Writing Prospectus is not prepared in connection with the offering contemplated by this Agreement, then all references to the “Second General Disclosure Package” shall be disregarded and all references to the “General Disclosure Packages” and any “General Disclosure Package” shall be deemed to mean the First General Disclosure Package, mutatis mutandis), nor (c) any individual Issuer Limited Use Free Writing Prospectus, when considered together with the First General Disclosure Package, included or will include any untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

The representations and warranties set forth in the two immediately preceding paragraphs shall not apply to statements in or omissions from the Registration Statement, the Prospectus or any General Disclosure Package made in reliance upon and in conformity with information furnished to the Company in writing by any Underwriter through the Representatives expressly for use therein.

Each preliminary prospectus and prospectus filed as part of the Registration Statement as originally filed or as part of any amendment thereto or filed pursuant to Rule 424 in connection with the offering of the Securities (including, without limitation, the Statutory Prospectus and the Prospectus) complied and will comply when so filed in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations.

The copies of the Initial Registration Statement and any Rule 462(b) Registration Statement and any amendments thereto and the copies of the Statutory Prospectus, any other preliminary prospectus, each Issuer Free Writing Prospectus that is required to be filed with the Commission pursuant to Rule 433 and the Prospectus and any amendments or supplements thereto delivered and to be delivered to the Underwriters (electronically or otherwise) in connection with the offering of the Securities were and will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

The Company has made available a “bona fide electronic road show” (as defined in Rule 433(h)) in compliance with Rule 433(d)(8) (ii) such that no filing with the Commission of any “road show” (as defined in Rule 433(h)) is required in connection with the offering of the Securities.

Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offering and sale of the Securities, or until any earlier date that the Company notified or notifies Stifel and Canaccord as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Statutory Prospectus or the Prospectus. If at any time following the issuance of an Issuer Free Writing Prospectus and prior to the Closing Date there occurred or occurs an event

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or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information then contained in the Registration Statement, the Statutory Prospectus or the Prospectus or as a result of which such Issuer Free Writing Prospectus, if republished immediately following such event or development, would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, (i) the Company has promptly notified or will promptly notify Stifel and Canaccord and (ii) the Company has promptly amended or will promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission; provided, however, that prior to amending or supplementing any such Issuer Free Writing Prospectus, the Company shall furnish to Stifel and Canaccord for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented Issuer Free Writing Prospectus and the Company shall not file, use or refer to any such amended or supplemented Issuer Free Writing Prospectus without Stifel's and Canaccord's consent. The first two sentences of this paragraph do not apply to statements in or omissions from any Issuer Free Writing Prospectus made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through a Representative specifically for use therein.

At the time of filing the Initial Registration Statement, any 462(b) Registration Statement and any post-effective amendments thereto, as of the earliest time after the effective date of the Initial Registration Statement that the Company or any other offering participant made a bona fide offer of the Securities within the meaning of Rule 164(h)(2), and at the date hereof, the Company was not and is not an "ineligible issuer" as defined in Rule 405, in each case without taking into account any determination made by the Commission pursuant to paragraph (2) of the definition of such term in Rule 405; and, without limitation to the foregoing, the Company has at all relevant times met, meets and will at all relevant times meet the requirements of Rule 164 for the use of a free writing prospectus (as defined in Rule 405) in connection with the offering contemplated hereby.

(2) Pre-Closing Transactions. The Pre-Closing Transactions have been or will be consummated, as the case may be, on or prior to the respective times contemplated by the fourth (4th) paragraph of this Agreement (or such earlier times as may be contemplated by the Statutory Prospectus or the Prospectus) on the terms contemplated by this Agreement, the Statutory Prospectus and the Prospectus, and the Pre-Closing Transactions have been consummated and remain in full force and effect.

(3) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement, the Statutory Prospectus and the Prospectus are independent public accountants registered with the Public Company Accounting Oversight Board, as required by the 1933 Act and the 1933 Act Regulations.

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(4) Financial Statements. The financial statements of the Company included in the Registration Statement, the General Disclosure Packages and the Prospectus, together with the related schedules (if any) and notes, present fairly the financial position of the Company and its consolidated subsidiary at the dates indicated and the results of operations, changes in stockholders' equity and cash flows of the Company and its consolidated subsidiary for the periods specified; and all such financial statements have been prepared in conformity with GAAP applied on a consistent basis throughout the periods involved and comply with all applicable accounting requirements under the 1933 Act and the 1933 Act Regulations. The supporting schedules, if any, included in the Registration Statement present fairly, in accordance with GAAP, the information required to be stated therein. The information in the Statutory Prospectus and the Prospectus under the captions "Summary Financial Data" and "Selected Financial Data" presents fairly the information shown therein and has been compiled on a basis consistent with that of the audited financial statements of the Company included in the Registration Statement, the Statutory Prospectus and the Prospectus. The pro forma financial statements and the related notes and the pro forma and pro forma as adjusted financial information and related notes included in the Registration Statement, the General Disclosure Packages and the Prospectus present fairly the information shown therein, have been prepared in accordance with the Commission's rules and guidelines with respect to pro forma financial statements and have been properly compiled on the bases described therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein; and the information appearing in the Statutory Prospectus and the Prospectus under the caption "Summary Financial Data" presents fairly the information shown therein and has been compiled on a basis consistent with that of the pro forma financial statements included in the Registration Statement, the Statutory Prospectus and the Prospectus. Any information contained in the Registration Statement, any General Disclosure Package or the Prospectus regarding "non-GAAP financial measures" (as defined in Regulation G of the Commission) complies with Regulation G and Item 10 of Regulation S-K of the Commission, to the extent applicable.

(5) No Material Adverse Change in Business. Since the respective dates as of which information is given in the Registration Statement, the General Disclosure Packages and the Prospectus (in each case exclusive of any amendments or supplements thereto subsequent to the date of this Agreement), except as otherwise stated in the Registration Statement, the General Disclosure Packages and the Prospectus (in each case exclusive of any amendments or supplements thereto subsequent to the date of this Agreement), (A) there has been no material adverse change in the condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiary considered as one enterprise, whether or not arising in the ordinary course of business (a "Material Adverse Effect"), (B) there have been no transactions entered into by the Company or its subsidiary which are material with respect to the Company and its subsidiary considered as one enterprise, and (C) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its

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capital stock, except for dividends on the Series AA Preferred Stock payable in common shares in accordance with the terms thereof.

(6) Good Standing of the Company. The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Delaware and has power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Packages and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in the State of Iowa and the Commonwealth of Pennsylvania, which are the only jurisdictions in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except (solely in the case of jurisdictions other than the States of Iowa and Delaware) where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect.

(7) Good Standing of Subsidiary. Except as set forth below, the only subsidiary of the Company is BioProtection Systems Corporation (“BPS”). The Company owns all outstanding equity interests of BPS, and the capitalization of BPS is set forth on Exhibit B to this Agreement. BPS has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, has all corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Packages and the Prospectus and is duly qualified as a foreign corporation to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect; except as otherwise disclosed in the Registration Statement, the General Disclosure Packages and the Prospectus, all of the issued and outstanding capital stock of BPS has been duly authorized and validly issued, is fully paid and non-assessable and is owned, free and clear of any Lien, and is owned by the Company, directly; and none of the outstanding shares of capital stock or other similar interests of BPS was issued in any violation of the preemptive rights, rights of first refusal or other similar rights of any securityholder of BPS or any other person. The Company owns all of the outstanding equity of NewLink Biopharmaceutical Corporation (Shanghai) Limited, a Chinese company (“NewLink China”). NewLink China conducts no activities and has no assets and no liabilities. All steps necessary for the termination of NewLink China have been taken by its governing body and the Company and have not been and cannot be revoked. The Company will promptly take any other actions necessary to complete such termination.

(8) Capitalization. The authorized, issued and outstanding Capital Stock of the Company as of the date of this Agreement is as set forth in the column entitled “Actual” and in the corresponding line items under the caption “Capitalization” in the Statutory Prospectus and the Prospectus and, at the time of the purchase of the Initial Securities by the Underwriters on the Closing Date and as of each Option Closing Date (if any), the authorized, issued and outstanding Capital Stock of the Company will be as set forth

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in the column entitled “Pro Forma As Adjusted” and in the corresponding line items under such caption (in each case except for subsequent issuances, if any, pursuant to this Agreement, pursuant to employee or director stock option or stock purchase plans referred to in the Statutory Prospectus and the Prospectus or pursuant to the exercise of options or convertible securities referred to in the Statutory Prospectus and the Prospectus). The shares of issued and outstanding Capital Stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable; and none of the outstanding shares of Capital Stock of the Company was issued in violation of any preemptive rights, rights of first refusal or other similar rights of any securityholder of the Company or any other person.

(9) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company.

(10) Authorization of Securities. The Securities to be sold by the Company pursuant to this Agreement have been duly authorized for issuance and sale to the Underwriters pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement against payment of the consideration set forth herein, will be validly issued, fully paid and non-assessable; no holder of the Securities is or will be subject to personal liability by reason of being such a holder; and the issuance and sale of the Securities to be sold by the Company pursuant to this Agreement is not subject to any preemptive rights, rights of first refusal or other similar rights of any securityholder of the Company or any other person that have not been duly complied with or waived.

(11) Description of Securities. The Common Stock, the authorized but unissued Preferred Stock, the Series A Preferred Stock, the Series AA Preferred Stock, the Series AAA Preferred Stock, the Series B Preferred Stock, the Series BB Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock and the Series E Preferred Stock, and the Company’s charter and bylaws conform in all material respects to all of the respective statements relating thereto contained in the Registration Statement, the General Disclosure Packages and the Prospectus and such statements conform in all material respects to the rights set forth in the respective instruments and agreements defining the same.

(12) Absence of Defaults and Conflicts. Neither the Company nor its subsidiary is in violation of its Organizational Documents or in default in the performance or observance of any obligation, agreement, covenant or condition contained in any Company Document, except (solely in the case of Company Documents other than Subject Instruments) for such defaults that would not result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein and in the Registration Statement, the General Disclosure Packages and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described in the Statutory Prospectus and the Prospectus under the caption “Use of Proceeds”) and compliance by the Company with its obligations under this Agreement do not and will not, whether with or without

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the giving of notice or passage of time or both, conflict with or constitute a breach of, or default or Repayment Event under, or result in the creation or imposition of any Lien upon any property or assets of the Company or its subsidiary pursuant to, any Company Documents, except (solely in the case of Company Documents other than Subject Instruments) for such conflicts, breaches, defaults or Liens that would not result in a Material Adverse Effect, nor will such execution, delivery, performance or compliance result in any violation of the provisions of the Organizational Documents of the Company or its subsidiary or any applicable law, statute, rule, regulation, judgment, order, writ or decree of any government, government instrumentality or court, domestic or foreign, having jurisdiction over the Company or its subsidiary or any of their respective assets, properties or operations.

(13) Absence of Labor Dispute. No labor dispute with the employees of the Company or the subsidiary of the Company exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of the principal suppliers, manufacturers, customers or contractors of the Company or its subsidiary which, in any such case, may reasonably be expected to result in a Material Adverse Effect.

(14) Absence of Proceedings. There is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, now pending, or, to the knowledge of the Company, threatened, against or affecting the Company or its subsidiary that is required to be disclosed in the Registration Statement, the Statutory Prospectus or the Prospectus (other than as disclosed therein), or which might reasonably be expected to result in a Material Adverse Effect, or which might reasonably be expected to materially and adversely affect the properties or assets thereof or the consummation of the transactions contemplated in this Agreement or the performance by the

Company of its obligations under this Agreement; the aggregate of all pending legal or governmental proceedings to which the Company or its subsidiary is a party or of which any of their respective property or assets is the subject which are not described in the Registration Statement, the Statutory Prospectus and the Prospectus, including ordinary routine litigation incidental to the business, could not reasonably be expected to result in a Material Adverse Effect.

(15) Accuracy of Descriptions and Exhibits. The information in the Statutory Prospectus and the Prospectus under the captions “Risk Factors—Business Risks,” “Risk Factors—Risks Relating to Manufacturing Activities,” “Risk Factors—Risks Relating to Regulation of Our Industry,” “Risk Factors—Risks Relating to Competitive Factors,” “Risk Factors—Risks Relating to Our Arrangements with Third Parties,” “Risk Factors—Risks Relating to Protecting Our Intellectual Property,” “Risk Factors—Risks Relating to Our Exposure to Litigation,” “Risk Factors—Offering Risks,” “Business—Intellectual Property,” “Business—Licensing Agreements,” “Business—Governmental Regulation,” “Executive and Director Compensation—Employee Benefit Plans,” “Executive and Director Compensation—Indebtedness of Management and Related Agreements,” “Executive and Director Compensation—Limitation of Liabilities and Indemnification,” “Certain Relationships and Related Party Transactions,” “Description of Capital Stock,” “Certain U.S. Federal Income and Estate Tax Consequences to Non-U.S. Holders of our Common Stock,” and the information in the Registration Statement under Items 14 and 15, in each case to the extent that it constitutes matters of law, summaries of legal matters, summaries of provisions of the Company’s charter or

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bylaws or other instruments or agreements, summaries of legal proceedings, or legal conclusions, is correct in all material respects; all descriptions in the Registration Statement, the General Disclosure Packages and the Prospectus of any Company Documents are accurate in all material respects; and there are no franchises, contracts, indentures, mortgages, deeds of trust, loan or credit agreements, bonds, notes, debentures, evidences of indebtedness, leases or other instruments, agreements or documents required to be described or referred to in the Registration Statement, the Statutory Prospectus or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(16) Possession of Intellectual Property. Except as set forth in the Registration Statement or the Prospectus, the Company and its subsidiary own or possess or have the right to use on reasonable terms all patents, patent rights, patent applications, licenses, inventions, copyrights, know how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names, service names and other intellectual property (collectively, “Intellectual Property”) described in the General Disclosure Packages and the Prospectus as being necessary to carry on, or otherwise used or held for use in connection with, their respective businesses as described in the General Disclosure Packages and the Prospectus and as proposed to be conducted as described in the General Disclosure Packages and the Prospectus (collectively, the “Company Intellectual Property”); and neither the Company nor its subsidiary has received any notice or is otherwise aware of any infringement of or conflict with asserted Intellectual Property of others by any Company Intellectual Property or of any facts or circumstances which would render any Company Intellectual Property invalid, unenforceable or inadequate to protect the interests of the Company or its subsidiary therein, and which infringement or conflict (if the subject of any unfavorable decision, ruling or finding) or invalidity, unenforceability or inadequacy, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. All former and current employees of the Company or its subsidiary (and, to the Company’s knowledge, all other agents, consultants and contractors of the Company or its subsidiary who contributed to or participated in the conception or development of any Company Intellectual Property for the Company or its subsidiary) have executed binding written contracts or agreements that assign to the Company all rights to any such Company Intellectual Property. Each such contract or agreement is in full force and effect. To the knowledge of the Company, there is no unauthorized use, infringement or misappropriation of any of the Company Intellectual Property by any third party, employee or former employee. Each agreement and instrument (each, a “License Agreement”) pursuant to which any Company Intellectual Property is licensed to the Company or its subsidiary is in full force and effect, has been duly authorized, executed and delivered by, and is a valid and binding agreement of, the Company or its subsidiary, as the case may be, enforceable against the Company or such subsidiary in accordance with its terms, except as enforcement thereof may be subject to bankruptcy, insolvency or other similar laws relating to or affecting creditors’ rights generally or by general equitable principles; the Company and its subsidiary are in compliance with their respective obligations under all License

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Agreements and, to the knowledge of the Company, all other parties to any of the License Agreements are in compliance with all of their respective obligations thereunder; no event or condition has occurred or exists that gives or would give any party to any License Agreement the right, either immediately or with notice or passage of time or both, to terminate or limit (in whole or in part) any such License Agreement or any rights of the Company or its subsidiary thereunder, to exercise any of such party’s remedies thereunder, or to take any action that could reasonably be expected to have a Material Adverse Effect and the Company is not aware of any facts or circumstances that would result in any of the foregoing or give any party to any License Agreement any such right; and neither the Company nor its subsidiary has received any notice of default, breach or non-compliance under any License Agreement.

(17) Absence of Further Requirements. (A) No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any court or governmental authority or agency, domestic or foreign, (B) no authorization, approval, vote or other consent of any holder of Capital Stock or other securities of the Company or any creditor of the Company, (C) no waiver or consent under any Subject Instrument, and (D) no authorization, approval, vote or other consent of any other person or entity, is necessary or required for the execution, delivery or performance by the Company of this Agreement, for the offering, issuance, sale or delivery of the Securities hereunder, or for the consummation of any of the other transactions contemplated by this Agreement, in each case on the terms contemplated by the Registration Statement, the General Disclosure Packages and the Prospectus, except such as have been obtained under the 1933 Act, the 1933 Act Regulations, the 1934 Act and the 1934 Act Regulations or such as may be required under state securities laws.

(18) Possession of Licenses and Permits. The Company and its subsidiary possess such permits, licenses, approvals, consents and other authorizations (collectively, “Governmental Licenses”) issued by the appropriate federal, state, local or foreign regulatory agencies or bodies necessary to conduct the business now operated by them; the Company and its subsidiary are in compliance with the terms and conditions of all such Governmental Licenses. The Governmental Licenses are valid and in full force and effect, and neither the Company nor its subsidiary has received any notice of proceedings relating to the revocation or modification of any such Governmental Licenses.

(19) Title to Property. The Company and its subsidiary have good and marketable title in fee simple to all real property owned by any of them and good title to all other properties and assets owned by any of them, in each case, free and clear of all Liens except such as (a) are

described in the Registration Statement, the General Disclosure Packages and the Prospectus or (b) do not, individually or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or its subsidiary; all real property, buildings and other improvements, and equipment and other property held under lease or sublease by the Company or its subsidiary are held by them under valid, subsisting and enforceable leases or subleases, as the case may be, with, solely in the case of leases or subleases

relating to real property and buildings or other improvements, such exceptions as are not material and do not interfere with the use made or proposed to be made of such property and buildings or other improvements by the Company and its subsidiary, and all such leases and subleases are in full force and effect; and neither the Company nor its subsidiary has any notice of any claim of any sort that has been asserted by anyone adverse to the rights of the Company or its subsidiary under any of the leases or subleases mentioned above or affecting or questioning the rights of the Company or its subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease except for such claims which, if successfully asserted against the Company or its subsidiary, would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(20) Investment Company Act. The Company is not, and upon the sale of the Securities to the Underwriters as herein contemplated and the application of the net proceeds therefrom as described in the Statutory Prospectus and the Prospectus under the caption "Use of Proceeds," the Company will not be, an "investment company" as such term is defined in the 1940 Act.

(21) Environmental Laws. Except as described in the Registration Statement, the General Disclosure Packages and the Prospectus and except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, (A) neither the Company, its subsidiary nor their respective operations or properties are in violation of any federal, state, local or foreign law, regulation or rule of common law, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products (collectively, "Hazardous Materials") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "Environmental Laws"), (B) the Company and its subsidiary have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the Company's knowledge, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or its subsidiary and (D) there are no events or circumstances that might reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or governmental body or agency, against or affecting the Company or its subsidiary relating to Hazardous Materials or any Environmental Laws.

(22) Absence of Registration Rights. There are no persons with registration rights or other similar rights to have any securities (debt or equity) registered pursuant to the Registration Statement or included in the offering contemplated by this Agreement or otherwise registered by the Company under the 1933 Act, and there are no persons with

co-sale rights, tag-along rights or other similar rights to have any securities (debt or equity) included in the offering contemplated by this Agreement or sold in connection with the sale of Securities pursuant to this Agreement, except in each case for such rights that have been duly waived in writing; and the Company has given all notices required by, and has otherwise complied with its obligations or has received written waivers from all relevant parties of any failure on its part to give to give any such notice or comply with any such obligation under, all registration rights agreements, co-sale agreements, tag-along agreements and other similar agreements in connection with the transactions contemplated by this Agreement.

(23) Parties to Lock-Up Agreements. Each of the Company's directors and officers, and each holder of any shares of outstanding Common Stock or other Capital Stock or any outstanding warrants, options or other securities convertible into, or exchangeable or exercisable for, Common Stock or other Capital Stock listed on Exhibit C-1 has executed and delivered to the Representatives a lock-up agreement in the form of Exhibit D hereto. Exhibit C-2 hereto contains a true, complete and correct list of all directors and officers of the Company. The holders of such shares, warrants or other securities not listed on Exhibit C-1 hold, in the aggregate, not more than 9.9% of the outstanding Common Stock or other Capital Stock. All outstanding stock options issued by the Company provide, and all stock options that may be issued by the Company at any time during the Lock-Up Period (as defined below) will provide, in each case pursuant to written stock option agreements or similar agreements executed and delivered by the holders of such stock options, that the holders of such stock options will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale of any shares of Common Stock or other securities of the Company owned by such holders, during the Lock-Up Period; and, during the Lock-Up Period, the Company will not cause or permit any waiver, release, modification or amendment of any such restriction on transfer without the prior written consent of Stifel and Canaccord.

(24) Stop Transfer Instructions. The Company has, with respect to all Common Stock (other than Securities to be sold pursuant to this Agreement) and other Capital Stock and all securities convertible into, or exercisable or exchangeable for, Common Stock or other Capital Stock owned or held (of record or beneficially) by any of the persons who, as described in the immediately preceding paragraph, have entered into lock-up agreements in the form of Exhibit D hereto, provided written directions to the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the Lock-Up Period; and, during the Lock-Up Period, the Company will not cause or permit any waiver, release, modification or amendment of any such stop transfer instructions or stop transfer procedures without the prior written consent of Stifel and Canaccord.

(25) Nasdaq Global Market. The outstanding shares of Common Stock and the Securities to be sold by the Company hereunder have been approved for listing, subject only to official notice of issuance, on the Nasdaq Global Market.

(26) FINRA Matters. All of the information provided to the Underwriters or to counsel for the Underwriters by the Company and, to the knowledge of the Company, its officers and directors and the holders of any securities of the Company in connection with letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rule 5110 and/or FINRA Rule 5121 is true, complete and correct.

(27) Tax Returns. The Company and its subsidiary have filed all foreign, federal, state and local tax returns that are required to be filed or have requested extensions thereof, in each case except where the failure so to file would not, individually or in the aggregate, have a Material Adverse Effect, and have paid all taxes required to be paid by them and any other assessment, fine or penalty levied against any of them, to the extent that any of the foregoing is due and payable, except for any such tax, assessment, fine or penalty that is currently being contested in good faith by appropriate actions and except for such taxes, assessments, fines or penalties the nonpayment of which would not, individually or in the aggregate, have a Material Adverse Effect.

(28) Insurance. The Company and its subsidiary are insured by insurers of reasonably rated financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which they are engaged; all policies of insurance and any fidelity or surety bonds insuring the Company or its subsidiary or their respective businesses, assets, employees, officers and directors are in full force and effect; the Company and its subsidiary are in compliance with the terms of such policies and instruments in all material respects; there are no claims by the Company or its subsidiary under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause with respect to any material claim; neither the Company nor such subsidiary has been refused any insurance coverage sought or applied for; and neither the Company nor such subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect.

(29) Accounting Controls. The Company and its subsidiary maintain a system of internal accounting controls sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorizations, (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (C) access to assets is permitted only in accordance with management's general or specific authorization, and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement, the Statutory Prospectus and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

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(30) Compliance with the Sarbanes-Oxley Act. From and after the date of the initial filing of the Registration Statement, there is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply with any provision of the Sarbanes-Oxley Act with which any of them is required to comply, including Section 402 related to loans.

(31) Absence of Stabilization or Manipulation; Compliance with Regulation M. The Company has not taken and will not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company, whether to facilitate the sale or resale of the Securities or otherwise, and has taken no action which would directly or indirectly violate Regulation M. The Company acknowledges that the Underwriters may engage in passive market-making transactions in the Securities on the Nasdaq Global Market in accordance with Regulation M.

(32) Statistical, Demographic or Market-Related Data. Any statistical, demographic or market-related data included in the Registration Statement, any General Disclosure Package or the Prospectus is based on or derived from sources that the Company believes to be reliable and accurate, all such data included in the Registration Statement, any General Disclosure Package or the Prospectus accurately reflects in all material respects the materials upon which it is based or from which it was derived, and the Company has delivered true, complete and correct copies of such materials to the Representatives.

(33) Foreign Corrupt Practices Act. Neither the Company nor its subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or its subsidiary is aware of or has taken any action, directly or indirectly, that has resulted or would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA, and the Company and its subsidiary and, to the knowledge of the Company, its other affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(34) Money Laundering Laws. The operations of the Company and its subsidiary are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules,

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regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, "Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or its subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(35) OFAC. Neither the Company nor its subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or person acting on behalf of the Company or its subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly use any of the proceeds received by the Company from the sale of Securities contemplated by this Agreement, or lend, contribute or otherwise make available any such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC, except as otherwise authorized by any valid license issued by OFAC.

(36) Lending Relationship. Neither the Company nor its subsidiary has any outstanding borrowings from, or is a party to any line of credit, credit agreement or other credit facility or otherwise has a borrowing relationship with, any bank or other lending institution affiliated with any of the Underwriters, and the Company does not intend to use any of the proceeds from the sale of the Securities to repay any debt owed to any Underwriter or any affiliate of any Underwriter.

(37) Transfer Taxes. There are no stock or other transfer taxes, stamp duties, capital duties or other similar duties, taxes or charges payable in connection with the execution or delivery of this Agreement by the Company or the issuance or sale by the Company of the Securities to be sold by the Company to the Underwriters hereunder.

(38) Related Party Transactions. There are no business relationships or related party transactions involving the Company or its subsidiary or, to the knowledge of the Company, any other person that are required to be described in the Statutory Prospectus or the Prospectus that have not been described as required.

(39) ERISA. (i) Each “employee benefit plan” (within the meaning of Section 3(3) of the Employee Retirement Security Act of 1974, as amended (“ERISA”), for which the Company or any member of its “Controlled Group” (defined as an organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Internal Revenue Code of 1986, as amended (the “Code”)) would have any liability (each a “Plan”) has been maintained in compliance with its terms and with the requirements of all applicable statutes, rules and regulations including ERISA and the Code in all material respects; (ii) with respect to each Plan subject to Title IV of ERISA (a) no “reportable event” (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur, (b) no failure to satisfy the minimum funding standard under of Section 302 of ERISA or Section 412 of the Code), whether or not waived, has

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occurred or is reasonably expected to occur, (c) the fair market value of the assets under each Plan exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan) and (d) neither the Company or any member of its Controlled Group has incurred, or reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan,” within the meaning of Section 4001(a)(3) of ERISA); and (iii) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(40) FDA Compliance. Except as described in the Registration Statement, the General Disclosure Packages and the Prospectus, each of the Company and its subsidiary: (a) is and at all times has been in material compliance with all statutes, rules or regulations of the U.S. Food and Drug Administration (“FDA”) and other comparable federal, state, local or foreign governmental or regulatory authorities (each a “Governmental Authority”) applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product under development, manufactured or distributed by the Company or its subsidiary (collectively, “Applicable Laws”); (b) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA or any Governmental Authority alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (collectively, “Authorizations”) that would reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect; (c) possesses all material Authorizations necessary for the operation of its business as presently conducted, and such Authorizations are valid and in full force and effect, and neither the Company, nor its subsidiary, is in material violation or any term of any such Authorizations; (d) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from the FDA or any Governmental Authority or third party alleging material violation of any Applicable Laws or Authorizations and has no knowledge that the FDA or any Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (e) has not received notice that the FDA or any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any material Authorizations and has no knowledge that the FDA or any Governmental Authority is considering such action; and (f) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were materially complete and correct on the date filed (or were corrected or supplemented by a subsequent submission).

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(41) Clinical Studies. The preclinical and clinical trials conducted by or, to the Company’s knowledge, on behalf of the Company or its subsidiary were and, if still ongoing, are being conducted in all material respects in accordance with the protocols filed with the appropriate regulatory authority for each such trial and pursuant to accepted professional scientific standards and all applicable FDA regulations and guidances; the descriptions of the results of such trials contained in the Registration Statement, the General Disclosure Packages and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such trials; except to the extent disclosed in the Registration Statement, the General Disclosure Packages and the Prospectus, neither the Company, nor its subsidiary, is aware of any studies, tests or trials, the results of which the Company or its subsidiary believes reasonably call into question the trial results described or referred to in the Registration Statement, the General Disclosure Packages and the Prospectus when viewed in the context in which such results are described in and the applicable clinical state of development; and, except to the extent disclosed in the Registration Statement, the General Disclosure Packages or the Prospectus, neither the Company, nor its subsidiary, has received any notices or correspondence from the FDA or any Governmental Authority requiring the termination, suspension or material modification of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company or its subsidiary.

None of the Company, its subsidiary or any third party acting by or on behalf of the Company or its subsidiary has been debarred or is subject to debarment in any capacity concerning or in connection with the manufacture, testing or development of the Company's material product candidates (including, without limitation, the "Hyper Acute® Pancreas" product candidate currently in Phase 3 clinical trials, "Products"), the planning or management of any pre-clinical or clinical trials involving the Products or the production and analysis of the data and results generated thereunder.

(42) Other Offerings. With respect to the Series E Financing, (a) it is not necessary in connection with the offer, sale and delivery of the securities offered in connection therewith to register such securities under the 1933 Act; (b) neither the Company, BPS, nor any affiliate (as defined in Rule 501(b) or Regulation D under the 1933 Act) of the Company or BPS has directly, or through any agent, sold, offered for sale, solicited offers to buy or otherwise negotiated in respect of, any security (as defined in the 1933 Act) which is or will be integrated with the offering and sale of the Securities in a manner that would require the registration under the 1933 Act of the offering of such security; and (c) none of the Company, BPS, any affiliate of the Company or BPS or any person acting on its or their behalf has offered or sold the securities offered in connection therewith by any means of any general solicitation or general advertising within the meaning of Rule 502(c) under the 1933 Act.

(43) Directed Share Program. The Statutory Prospectus, any other preliminary prospectus, the Prospectus and each General Disclosure Package and any amendments or supplements thereto complied or will comply with any applicable laws, rules and regulations of any foreign jurisdictions in which any such document has been or will be distributed in connection with offers and sales of Reserved Securities and no consent, approval or authorization or order of, or filing or registration with, any court or governmental

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agency, body or official (except such as have been made or obtained, as the case may be) was, is or will be required under the laws, rules or regulations of any foreign jurisdiction in which any Reserved Securities have been or will be offered or sold.

SECTION 2. Sale and Delivery to Underwriters; Closing.

(a) Initial Securities. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company agrees to sell to the Underwriters, severally and not jointly, all of the Initial Securities, and each Underwriter, severally and not jointly, agrees to purchase the respective number of Initial Securities set forth opposite the name of such Underwriter on Exhibit A hereto, plus any additional number of Initial Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, subject to such adjustments among the Underwriters as the Representatives in their sole discretion shall make to eliminate any sales or purchases of fractional Securities, in each case at a purchase price of \$[] per share (the "Purchase Price").

(b) Option Securities. In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters, severally and not jointly, to purchase up to [] Option Securities at a price per share equal to the Purchase Price referred to in Section 2(a) above, for the sole purpose of covering over-allotments in connection with the sale of the Initial Securities; provided that the price per share for any Option Securities shall be reduced by an amount per share equal to any dividends or distributions payable or paid by the Company on the Initial Securities but not payable on such Option Securities. The option hereby granted will expire at 11:59 P.M. (New York City time) on the 30th day after the date hereof and may be exercised in whole or in part from time to time only for the purpose of covering over-allotments which may be made in connection with the offering and distribution of the Initial Securities upon notice by the Representatives to the Company setting forth the number of Option Securities as to which the several Underwriters are then exercising the option and the time and date of payment and delivery for such Option Securities. Any such time and date of delivery (an "Option Closing Date") shall be determined by the Representatives, but shall not be later than seven full business days after the exercise of said option, nor in any event prior to the Closing Date. If the option is exercised as to all or any portion of the Option Securities, the Company will sell to the Underwriters that number of Option Securities then being purchased, and each of the Underwriters, acting severally and not jointly, will purchase that proportion of the total number of Option Securities then being purchased which the number of Initial Securities set forth in Exhibit A opposite the name of such Underwriter, plus any additional number of Initial Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, bears to the total number of Initial Securities, subject in each case to such adjustments as the Representatives in their discretion shall make to eliminate any sales or purchases of fractional shares.

(c) Payment. Payment of the purchase price for, and delivery of certificates for, the Initial Securities shall be made at the offices of Cahill Gordon & Reindel LLP, 80 Pine Street, New York, NY 10005, or at such other place as shall be agreed upon by the Representatives and the Company, at 9:00 A.M. (New York City time) on [], 2011 (unless postponed in

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accordance with the provisions of Section 10), or such other time not later than ten business days after such date as shall be agreed upon by the Representatives and the Company (such time and date of payment and delivery being herein called "Closing Date").

In addition, in the event that any or all of the Option Securities are purchased by the Underwriters, payment of the purchase price for, and delivery of certificates for, such Option Securities shall be made at 9:00 A.M. (New York City time) at the above-mentioned offices, or at such other place as shall be agreed upon by the Representatives and the Company, on each Option Closing Date as specified in the notice from the Representatives to the Company.

Payment shall be made to the Company by wire transfer of immediately available funds to a single bank account designated by the Company, in each case against delivery to the Representatives for the respective accounts of the Underwriters of the Securities to be purchased by them. It is understood that each Underwriter has authorized the Representatives, for its account, to accept delivery of, receipt for, and make payment of the purchase price for, the Initial Securities and the Option Securities, if any, which it has agreed to purchase. Each of Stifel and Canaccord, individually and not as representative of the Underwriters, may (but shall not be obligated to) make payment of the purchase price for the Initial Securities or the Option Securities, if any, to be purchased by any Underwriter whose funds have not been received by the Closing Date or the relevant Option Closing Date, as the case may be, but such payment shall not relieve such Underwriter from its obligations hereunder.

(d) Denominations; Registration. Certificates for the Initial Securities and the Option Securities, if any, shall be in such denominations and registered in such names as the Representatives may request in writing at least one full business day before the Closing Date or the relevant Option Closing Date, as the case may be. The certificates for the Initial Securities and the Option Securities, if any, will be made available for examination and packaging by

the Representatives in The City of New York not later than noon (New York time) on the business day prior to the Closing Date or the relevant Option Closing Date, as the case may be.

SECTION 3. Covenants of the Company. The Company covenants with each Underwriter as follows:

(a) *Compliance with Securities Regulations and Commission Requests.* The Company, subject to Section 3(b), will comply with the requirements of Rule 430A and Rule 433 and will notify the Representatives immediately, and confirm the notice in writing, (i) when the Initial Registration Statement, any Rule 462(b) Registration Statement or any post-effective amendment to the Registration Statement shall become effective, and when the Statutory Prospectus, any other preliminary prospectus, the Prospectus or any Issuer Free Writing Prospectus or any amendments or supplements thereto shall have been filed, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Statutory Prospectus, any other preliminary prospectus or the Prospectus or any Issuer Free Writing Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration

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Statement or of any order preventing or suspending the use of any the Statutory Prospectus, any other preliminary prospectus, the Prospectus or any Issuer Free Writing Prospectus, or of the suspension of the qualification of the Securities for offering or sale in any jurisdiction or of the loss or suspension of any exemption from any such qualification, or of the initiation or threatening of any proceedings for any of such purposes, or of any examination pursuant to Section 8(e) of the 1933 Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the 1933 Act in connection with the offering of the Securities. The Company will make every reasonable effort to prevent the issuance of any stop order, the suspension of any qualification of the Securities for offering or sale and any loss or suspension of any exemption from any such qualification, and if any such stop order is issued or any such suspension or loss occurs, to obtain the lifting thereof at the earliest possible moment.

(b) *Filing of Amendments.* The Company will give the Representatives notice of its intention to file or prepare any amendment to the Registration Statement (including any filing under Rule 462(b)) or any amendment, supplement or revision to the prospectus included in the Registration Statement at the time it became effective, the Statutory Prospectus, any other preliminary prospectus, the Prospectus or (without limitations the provisions of Section 16 of this Agreement) any Issuer Free Writing Prospectus, whether pursuant to the 1933 Act or otherwise, and will furnish the Representatives with copies of any such documents within a reasonable amount of time prior to such proposed filing or use, as the case may be, and will not file or use any such document to which the Representatives or counsel for the Underwriters shall object.

(c) *Delivery of Registration Statements.* The Company has furnished or will deliver to the Representatives and counsel for the Underwriters, without charge, signed copies of the Initial Registration Statement and any Rule 462(b) Registration Statement as originally filed and of each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts.

(d) *Delivery of Prospectuses.* The Company has delivered to each Underwriter, without charge, as many copies of the Statutory Prospectus, each other preliminary prospectus and any Issuer Free Writing Prospectuses prepared prior to the date of this Agreement and amendments or supplements thereto prepared prior to the date of this Agreement as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Underwriter, without charge, such number of copies of the documents constituting any General Disclosure Package, any Issuer Free Writing Prospectuses prepared on or after the date of this Agreement and the Prospectus and any amendments or supplements thereto as such Underwriter may reasonably request.

(e) *Continued Compliance with Securities Laws.* The Company will comply with the 1933 Act, the 1933 Act Regulations, 1934 Act and the 1934 Act Regulations so as to permit the completion of the distribution of the Securities as contemplated in this Agreement and the Prospectus. If at any time when a prospectus is required by the 1933

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Act, the 1933 Act Regulations, the 1934 Act or the 1934 Act Regulations to be delivered in connection with sales of the Securities (including, without limitation, pursuant to Rule 173), any event shall occur or condition shall exist as a result of which it is necessary, in the judgment of counsel for the Underwriters or for the Company, to amend the Registration Statement or amend or supplement any General Disclosure Package or the Prospectus in order that such General Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser, or if it shall be necessary, in the judgment of such counsel, at any such time to amend the Registration Statement or amend or supplement any General Disclosure Package or the Prospectus in order to comply with the requirements of the 1933 Act or the 1933 Act Regulations, the Company will promptly prepare and file with the Commission, subject to Section 3(b) hereof, such amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, such General Disclosure Package or the Prospectus comply with such requirements, and the Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted, conflicts or would conflict with the information contained in the Registration Statement or included, includes or would include an untrue statement of a material fact or omitted, omits or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances, prevailing at that subsequent time, not misleading, the Company will promptly notify the Representatives and the Company will, subject to Section 3(b) hereof, promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(f) *Blue Sky and Other Qualifications.* The Company will use its best efforts, in cooperation with the Underwriters, to qualify the Securities for offering and sale, or to obtain an exemption for the Securities to be offered and sold, under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representatives may designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject. In each jurisdiction in which the Securities have

been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Securities.

(g) *Rule 158.* The Company will timely file such reports pursuant to the 1934 Act as are necessary in order to make generally available to its securityholders as soon as

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practicable an earnings statement for the purposes of, and to provide to the Underwriters the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

(h) *Use of Proceeds.* The Company will use the net proceeds received by it from the sale of the Securities in the manner specified in the Statutory Prospectus and the Prospectus under "Use of Proceeds."

(i) *Listing.* The Company will use its best efforts to effect the listing of the Securities on the Nasdaq Global Market.

(j) *Restriction on Sale of Securities.* During the period beginning on and including the date of this Agreement through and including the date that is the 180th day after the date of this Agreement (such period, as the same may be extended pursuant to the provisions set forth in the next sentence, is hereinafter called the "Lock-Up Period"), the Company will not, without the prior written consent of Stifel and Canaccord, directly or indirectly:

(i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of any shares of Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock,

(ii) file or cause the filing of any registration statement under the 1933 Act with respect to any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for any Common Stock or other Capital Stock (other than any Rule 462(b) Registration Statement filed to register Securities to be sold to the Underwriters pursuant to this Agreement, or

(iii) enter into any swap or other agreement, arrangement or transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for any Common Stock or other Capital Stock,

whether any transaction described in (i) or (iii) above is to be settled by delivery of Common Stock, other Capital Stock, other securities, in cash or otherwise. Moreover, if:

(1) during the last 17 days of such 180-day restricted period, the Company issues an earnings release or material news or a material event relating to the Company occurs, or

(2) prior to the expiration of such 180-day restricted period, the Company announces that it will release earnings results or becomes aware that material

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news or a material event will occur during the 16-day period beginning on the last day of such 180-day restricted period,

the restrictions imposed by this Section 3(j) shall continue to apply until the expiration of the 18-day period beginning on the date of issuance of the earnings release or the occurrence of the material news or material event, as the case may be, unless Stifel and Canaccord waive, in writing, such extension. In the event of any extension of the Lock-Up Period pursuant to the immediately preceding sentence, the Company shall notify the Representatives and each person listed in Exhibit C hereto of such extension as promptly as practicable and in any event prior to the last day of the Lock-Up Period prior to giving effect to such extension.

Notwithstanding the provisions set forth in the immediately preceding paragraph, the Company may, without the prior written consent of Stifel and Canaccord:

(1) issue Securities to the Underwriters pursuant to this Agreement,

(2) issue shares, and options to purchase shares, of Common Stock pursuant to equity incentive plans, employee stock option plans and employee stock purchase plans described in the General Disclosure Package and the Prospectus, as those plans are in effect on the date of this Agreement, and

(3) issue shares of Common Stock (A) upon the exercise of stock options issued under equity incentive plans referred to in clause (2) above, as those plans are in effect on the date of this Agreement, (B) upon the exercise of warrants outstanding on the date of this Agreement and described in the General Disclosure Package and the Prospectus, as those warrants are in effect on the date of this Agreement or (C) upon the conversion of convertible debt securities outstanding on the date of this Agreement and described in the General Disclosure Package and the Prospectus, as those debt securities are in effect on the date of this Agreement,

provided, however, that in the case of any issuance described in clause (2) or (3) above, it shall be a condition to the issuance that either (a) solely in the case of an option to purchase shares, the terms of such option shall expressly provide that it is not exercisable during the Lock-Up Period (including any extension thereof), and the Company agrees that it will not cause or permit the exercise of such option during the Lock-Up Period (including any extension thereof), or (b) the Company shall, prior to issuing any such Shares, options or other equity incentives, require the recipient thereof to execute and deliver a lock-up agreement substantially in the form of Exhibit D hereto, which shall be addressed to Stifel and Canaccord,

as Representatives of the Underwriters, and otherwise satisfactory to them in form and substance, and the Company shall deliver a copy of such lock-up agreement to Stifel, not later than the business day on which it is executed and delivered, at the facsimile number and address set forth in Section 11 hereof, and shall

deliver the executed original of such lock-up agreement to Stifel, at the address set forth in Section 11 hereof, not later than the third business day after such execution.

(k) *Release or Waiver of Lock-Up.* If Stifel and Canaccord, in their sole discretion, agree to release or waive the restrictions set forth in a “lock-up” agreement described in Section 1(a)(23) for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three (3) business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit J hereto through a major news service at least two (2) business days before the effective date of the release or waiver.

(l) *Reporting Requirements.* The Company, during the period when the Prospectus is required to be delivered under the 1933 Act, the 1933 Act Regulations, the 1934 Act and the 1934 Act Regulations (including, without limitation, pursuant to Rule 173), will file all documents required to be filed with the Commission pursuant to the 1934 Act within the time periods required by the 1934 Act and the 1934 Act Regulations.

(m) *Preparation of Prospectus.* Immediately following the execution of this Agreement, the Company will, subject to Section 3(b) hereof, prepare the Prospectus containing the Rule 430A Information and other selling terms of the Securities, the plan of distribution thereof and such other information as may be required by the 1933 Act or the 1933 Act Regulations or as the Representatives and the Company may deem appropriate, and, if requested by the Representatives, will prepare the Issuer Pricing Free Writing Prospectus containing the information set forth in Exhibit G hereto and such other information as may be required by Rule 433 or as the Representatives and the Company may deem appropriate, and will file the Prospectus and any such Issuer Pricing Free Writing Prospectus with the Commission in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)) and Rule 433, respectively.

(n) *No Price Stabilization or Manipulation; Compliance with Regulation M.* The Company will, and shall cause its subsidiary to, comply with all applicable provisions of Regulation M. If the limitations of Rule 102 of Regulation M (“Rule 102”) do not apply with respect to the Securities or any other reference security pursuant to any exception set forth in Section (d) of Rule 102, then promptly upon notice from the Representatives (or, if later, at the time stated in the notice), the Company will, and shall cause its subsidiary to, comply with Rule 102 as though such exception were not available but the other provisions of Rule 102 (as interpreted by the Commission) did apply.

SECTION 4. Payment of Expenses.

(a) *Expenses.* The Company will pay all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and of each amendment thereto, (ii) the word processing, printing and delivery to the Underwriters of this

Agreement, any Agreement among Underwriters and such other documents as may be required in connection with the offering, purchase, sale, issuance or delivery of the Securities, (iii) the preparation, issuance and delivery of the certificates for the Securities to the Underwriters, including any stock or other transfer taxes and any capital duties, stamp duties or other duties or taxes payable upon the sale, issuance or delivery of the Securities to the Underwriters, (iv) the fees and disbursements of the counsel, accountants and other advisors to the Company, (v) the qualification or exemption of the Securities under securities laws in accordance with the provisions of Section 3(f) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection therewith and in connection with the preparation of the Blue Sky Survey and any supplements thereto, (vi) the printing and delivery to the Underwriters of copies of the Statutory Prospectus, any other preliminary prospectus, any Permitted Free Writing Prospectus, the documents constituting each General Disclosure Package, and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Underwriters to investors, (vii) the preparation, printing and delivery to the Underwriters of copies of the Blue Sky Survey and any Canadian “wrapper” and any supplements thereto, (viii) the fees and expenses of the Custodian and the transfer agent and registrar for the Securities, (ix) the filing fees incident to, and the reasonable fees and disbursements of counsel to the Underwriters (in an amount not to exceed \$12,500) in connection with, the review by FINRA of the terms of the sale of the Securities, (x) the costs and expenses relating to investor presentations and any road show undertaken in connection with the marketing of Securities, including, without limitation, expenses associated with the production of road show slides and graphics and any electronic road shows, fees and expenses of any consultants engaged in connection with the road show presentation or any persons or entities engaged to host any electronic road show, travel and other travel expenses and lodging expense of the representatives and officers of the Company and any such consultants; provided, however, that the Underwriters shall bear the cost of travel and lodging attributable solely to representatives of the Underwriters in connection with such investor presentations or road show; and provided, further, however, that the costs and expenses of any chartered aircraft shared by representatives or officers of the Company and representatives of the Underwriters in connection with such investor presentations or road show shall be borne 50% by the Company and 50% by the Underwriters, (xi) the fees and expenses incurred in connection with the listing of the Securities on the Nasdaq Global Market, (xii) the costs and expenses (including without limitation any damages or other amounts payable in connection with legal or contractual liability) associated with reforming any contracts for sale of the Securities made by any Underwriter where such reformation relates to any inaccuracy or breach of the representation set forth in the third paragraph of Section 1(a)(1) of this Agreement and (xiii) all costs and expenses of the Underwriters, including the reasonable fees and disbursements of counsel for the Underwriters, and all other costs and expenses in connection with matters related to the Reserved Securities and the establishment and administration of the program for the sale of the Reserved Securities.

(b) *Termination of Agreement.* If this Agreement is terminated by the Representatives in accordance with the provisions of Section 5 or Section 9(a)(i) hereof, the Company shall reimburse the Underwriters for all of their out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters; provided that in the event of any such termination

following the purchase of the Initial Securities, the Company's reimbursement obligation hereunder shall be limited to those expenses incurred after the consummation of such purchase.

SECTION 5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy of the representations and warranties of the Company contained in this Agreement or in certificates of any officer of the Company or its subsidiary delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement.* The Initial Registration Statement and any Rule 462(b) Registration Statement shall have become effective and at the Closing Date (or the applicable Option Closing Date, as the case may be) no stop order suspending the effectiveness of the Initial Registration Statement or any Rule 462(b) Registration Statement shall have been issued under the 1933 Act or proceedings therefor initiated or, to the knowledge of the Company, threatened by the Commission, and any request on the part of the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representatives. The Prospectus shall have been filed with the Commission in the manner and within the time period required by Rule 424(b) (without reliance upon Rule 424(b)(8)) and each Issuer Free Writing Prospectus required to be filed with the Commission shall have been filed in the manner and within the time period required by Rule 433, and, prior to Closing Date, the Company shall have provided evidence satisfactory to the Representatives of such timely filing.

(b) *Opinions of Counsel for Company.* At Closing Date, the Representatives shall have received the favorable opinion, dated as of Closing Date, of:

(i) *Opinion of Corporate and Regulatory Counsel for Company.* Cooley LLP, counsel for the Company ("Company Counsel"), in form and substance satisfactory to the Representatives, together with signed or reproduced copies of such opinion for each of the Underwriters, to the effect set forth in Exhibit E hereto and to such further effect as the Representatives may reasonably request.

(ii) *Opinion of Intellectual Property Counsel for the Company.* Cooley LLP, intellectual property counsel for the Company ("IP Counsel"), in form and substance satisfactory to the Representatives, together with signed or reproduced copies of such opinion for each of the Underwriters, to the effect set forth in Exhibit F-1 hereto and to such further effect as the Representatives may reasonably request.

(c) *Opinion of Counsel for Underwriters.* At Closing Date, the Representatives shall have received the favorable opinion, dated as of Closing Date, of Cahill Gordon & Reindel LLP, counsel for the Underwriters, together with signed or reproduced copies of such opinion for each of the Underwriters, with respect to the Securities to be sold by the Company pursuant to this Agreement, this Agreement, the Initial Registration Statement, any Rule 462(b) Registration Statement, the General Disclosure Packages and

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the Prospectus and any amendments or supplements thereto and such other matters as the Representatives may reasonably request. In giving such opinion such counsel may rely without investigation, as to all matters governed by the laws of any jurisdictions other than the law of the State of New York, the federal law of the United States and the Delaware General Corporation Law, upon the opinions of counsel satisfactory to the Representatives.

(d) *Officers' Certificate.* At Closing Date or the applicable Option Closing Date, as the case may be, there shall not have been, since the date hereof or since the respective dates as of which information is given in the Registration Statement, any General Disclosure Package and the Prospectus (in each case exclusive of any amendments or supplements thereto subsequent to the date of this Agreement), any material adverse change in the condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiary considered as one enterprise, whether or not arising in the ordinary course of business, and, at the Closing Date, the Representatives shall have received a certificate of the Chairman of the Board and Chief Executive Officer of the Company or President and Chief Medical Officer of the Company and of the Chief Financial Officer of the Company, dated as of Closing Date, to the effect that (i) there has been no such material adverse change, (ii) the representations and warranties of the Company in this Agreement are true and correct with the same force and effect as though expressly made at and as of Closing Date, (iii) the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied at or prior to Closing Date under or pursuant to this Agreement, and (iv) no stop order suspending the effectiveness of the Registration Statement has been issued and no proceedings for that purpose have been instituted or are pending or, to their knowledge, are contemplated by the Commission.

(e) *Accountant's Comfort Letter.* At the time of the execution of this Agreement, the Representatives shall have received from KPMG LLP a letter, dated the date of this Agreement and in form and substance satisfactory to the Representatives, together with signed or reproduced copies of such letter for each of the other Underwriters, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information of the Company contained in the Registration Statement, the Statutory Prospectus, any Issuer General Use Free Writing Prospectuses, any Issuer Pricing Free Writing Prospectus and the Prospectus and any amendments or supplements thereto.

(f) *Bring-down Comfort Letter.* At Closing Date, the Representatives shall have received from KPMG LLP a letter, dated as of Closing Date and in form and substance satisfactory to the Representatives, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (e) of this Section, except that the specified date referred to shall be a date not more than three business days prior to Closing Date.

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(g) *Approval of Listing.* At Closing Date and each Option Closing Date, if any, the Securities shall have been approved for listing on the Nasdaq Global Market, subject only to official notice of issuance.

(h) *Lock-up Agreements.* Prior to the date of this Agreement, the Representatives shall have received an agreement substantially in the form of Exhibit D hereto signed by each of the persons set forth in Exhibit C hereto.

(i) *No Objection.* Prior to the date of this Agreement, FINRA shall have confirmed in writing that it has no objection with respect to the fairness and reasonableness of the underwriting terms and arrangements.

(j) *Pre-Closing Transactions.* Prior to the purchase of the Initial Securities on the Closing Date, the Pre-Closing Transactions shall have been duly consummated at the respective times and on the terms contemplated by this Agreement, the General Disclosure Packages and the Prospectus and the Representatives shall have received a copy of the amended and restated certificate of incorporation of the Company certified by the Secretary of State of the State of Delaware and such other evidence that the Pre-Closing Transactions have been consummated as the Representatives may reasonably request.

(k) *Conditions to Purchase of Option Securities.* In the event that the Underwriters exercise their option provided in Section 2(b) hereof to purchase all or any portion of the Option Securities on any Option Closing Date that is after the Closing Date, the obligations of the several Underwriters to purchase the applicable Option Securities shall be subject to the conditions specified in the introductory paragraph of this Section 5 and to the further condition that, at the applicable Option Closing Date, the Representatives shall have received:

(1) *Officers' Certificate.* A certificate, dated such Option Closing Date, to the effect set forth in, and signed by two of the officers specified in, Section 5(d) hereof, except that the references in such certificate to the Closing Date shall be changed to refer to such Option Closing Date.

(2) *Opinions of Counsel for Company.* The favorable opinions of Company Counsel in form and substance satisfactory to the Representatives and dated such Option Closing Date, relating to the Option Securities to be purchased on such Option Closing Date and otherwise to the same effect as the opinions required by Section 5(b) hereof.

(3) *Opinion of Counsel for Underwriters.* The favorable opinion of Cahill Gordon & Reindel LLP, counsel for the Underwriters, in form and substance satisfactory to the Representatives and dated such Option Closing Date, relating to the Option Securities to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(c) hereof.

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(4) *Bring-down Comfort Letter.* A letter from KPMG LLP, in form and substance satisfactory to the Representatives and dated such Option Closing Date, substantially in the same form and substance as the letter furnished to the Representatives pursuant to Section 5(f) hereof, except that the "specified date" in the letter furnished pursuant to this paragraph shall be a date not more than three business days prior to such Option Closing Date.

(l) *Additional Documents.* At the Closing Date and at each Option Closing Date, counsel for the Underwriters shall have been furnished with such documents and opinions as they may reasonably request for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, contained in this Agreement; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as herein contemplated and in connection with the other transactions contemplated by this Agreement shall be satisfactory in form and substance to the Representatives.

(m) *Termination of Agreement.* If any condition specified in this Section 5 shall not have been fulfilled when and as required to be fulfilled and is not waived in writing by the Representatives, this Agreement, or, in the case of any condition to the purchase of Option Securities on an Option Closing Date which is after the Closing Date, the obligations of the several Underwriters to purchase the relevant Option Securities, may be terminated by the Representatives by notice to the Company at any time on or prior to Closing Date or such Option Closing Date, as the case may be, and such termination shall be without liability of any party to any other party except as provided in Section 4 hereof and except that, in the case of any termination of this Agreement, Sections 1 (if the purchase of the Initial Securities is consummated), 6, 7, 8 and 17 hereof shall survive such termination and remain in full force and effect and except that, in the case of the termination of the obligations of the several Underwriters to purchase any Option Securities on an Option Closing Date which is after the Closing Date, this Agreement shall otherwise survive such termination and remain in full force and effect.

SECTION 6. Indemnification.

(a) *Indemnification by the Company.* The Company agrees to indemnify and hold harmless each Underwriter and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included in the Statutory Prospectus, any other preliminary prospectus, any Issuer Free Writing Prospectus, any General Disclosure

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Package or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim

whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 6(d) below) any such settlement is effected with the written consent of the Company; and

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by Stifel and Canaccord, reasonably incurred) in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above,

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with written information furnished to the Company by any Underwriter through the Representatives expressly for use in the Registration Statement (or any amendment thereto), or in the Statutory Prospectus, any other preliminary prospectus, any Issuer Free Writing Prospectus, any General Disclosure Package or the Prospectus (or any amendment or supplement thereto); it being understood and agreed upon that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of each Underwriter are the statements set forth in the first paragraph under the heading “Underwriting—Commissions and Expenses,” and the second, third, fourth and fifth paragraphs under the section entitled “Underwriting—Price Stabilization, Short Positions and Penalty Bids,” in each case in the Prospectus.

(b) *Indemnification by the Underwriters.* Each Underwriter severally agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section 6, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), or the Statutory Prospectus, any other any preliminary prospectus, any Issuer Free Writing Prospectus, any General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with written information furnished to the Company by such Underwriter through the Representatives expressly for use therein.

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(c) *Actions against Parties; Notification.* Each indemnified party shall give notice as promptly as reasonably practicable to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve such indemnifying party from any liability hereunder to the extent it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability which it may have otherwise than on account of this indemnity agreement. Counsel to the indemnified parties shall be selected as follows: counsel to the Underwriters and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall be selected by Stifel and Canaccord; and counsel to the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall be selected by the Company. An indemnifying party may participate at its own expense in the defense of any such action; provided, however, that counsel to the indemnifying party shall not (except with the consent of the indemnified party) also be counsel to the indemnified party. In no event shall the indemnifying parties be liable for the fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for the Underwriters and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, the fees and expenses of more than one counsel (in addition to any local counsel), and the fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for the Company, its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, in each case in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever in respect of which indemnification or contribution could be sought under this Section 6 or Section 7 hereof (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Settlement Without Consent if Failure to Reimburse.* If at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a)(ii) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

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(e) *Indemnification for Reserved Securities.* In addition to and without limitation to the obligations of the Company to indemnify each Underwriter and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act pursuant to the other provisions of this Section 6, the Company agrees to indemnify and hold harmless each Underwriter and each person, if any, who controls any Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, (A) arising out of the violation of any applicable laws, rules or regulations of any foreign jurisdictions where Reserved Securities have been or are offered or sold, (B) arising out of any untrue statement or alleged untrue statement of a material fact contained in any prospectus “wrapper” or other material prepared by or with the consent of the Company for delivery or distribution to Reserved Securities Offerees or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, (C) arising out of the failure of any Reserved Security Offeree to pay for or accept delivery of the Reserved Securities which such Reserved Security Offeree agreed (orally or in writing, including, without limitation, by email, by notice of acceptance given by means of a website or by any other form of electronic communication) to purchase, or (D) otherwise arising out of or in connection with the offering or sale of the Reserved Securities;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim

whatsoever based upon any matter referred to in (i) above; provided that (subject to Section 6(d) above) any such settlement is effected with the written consent of the Company; and

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel chosen by Stifel and Canaccord, reasonably incurred) in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any matter referred to in (i) above, to the extent that any such expense is not paid under (i) or (ii) above;

provided, that this indemnity agreement shall not apply to any loss, liability, claim or expense which shall have been finally judicially determined by a court of competent jurisdiction to have resulted from the gross negligence or willful misconduct of any Underwriter.

SECTION 7. Contribution. If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on

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the other hand from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and of the Underwriters on the other hand in connection with the statements or omissions or, in the case of indemnification pursuant to Section 6(e), matters referred to in Section 6(e) which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

The relative benefits received by the Company on the one hand and the Underwriters on the other hand in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth on the cover of the Prospectus, bear to the aggregate initial public offering price of the Securities as set forth on such cover.

The relative fault of the Company on the one hand and the Underwriters on the other hand shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission or, in the case of indemnification provided for in Section 6(e), matters referred to in Section 6(e).

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 7 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 7. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 7 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission.

Notwithstanding the provisions of this Section 7, no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of any such untrue or alleged untrue statement or omission or alleged omission.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

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For purposes of this Section 7, each person, if any, who controls an Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as the Company. The Underwriters' respective obligations to contribute pursuant to this Section 7 are several in proportion to the number of Initial Securities set forth opposite their respective names in Exhibit A hereto and not joint.

SECTION 8. Representations, Warranties and Agreements to Survive Delivery. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or its subsidiary submitted pursuant hereto, shall remain operative and in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or controlling person, or by or on behalf of the Company and shall survive delivery of the Securities to the Underwriters.

SECTION 9. Termination of Agreement.

(a) Termination; General. The Representatives may terminate this Agreement, by notice to the Company, at any time on or prior to Closing Date (and, if any Option Securities are to be purchased on an Option Closing Date which occurs after the Closing Date, the Representatives may terminate the obligations of the several Underwriters to purchase such Option Securities, by notice to the Company, at any time on or prior to such Option Closing Date) (i) if there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Prospectus or any General Disclosure Package, any material adverse change in the condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiary considered as one enterprise, whether or not arising in the ordinary course of business, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or

economic conditions, in each case the effect of which is such as to make it, in the judgment of Stifel and Canaccord, impracticable or inadvisable to market the Securities or to enforce contracts for the sale of the Securities, or (iii) if trading in any securities of the Company has been suspended or limited by the Commission or the Nasdaq Global Market, or if trading generally on the American Stock Exchange, the NYSE or the Nasdaq Global Market has been suspended or limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by order of the Commission, FINRA or any other governmental authority, or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States or in Europe, or (iv) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Liabilities.* If this Agreement is terminated pursuant to this Section 9, such termination shall be without liability of any party to any other party except as provided in Section 4 hereof, and except that, in the case of any termination of this Agreement, Sections 1 (if the purchase

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of the Initial Securities is consummated), 6, 7, 8 and 17 hereof shall survive such termination and remain in full force and effect and except that, in the case of the termination of the obligations of the several Underwriters to purchase any Option Securities on an Option Closing Date which occurs after the Closing Date, this Agreement shall otherwise survive such termination and remain in full force and effect.

SECTION 10. *Default by One or More of the Underwriters.* If one or more of the Underwriters shall fail at Closing Date or an Option Closing Date to purchase the Securities which it or they are obligated to purchase under this Agreement (the “Defaulted Securities”), the Representatives shall have the right, within 24 hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters, to purchase all, but not less than all, of the Defaulted Securities in such amounts as may be agreed upon and upon the terms herein set forth; if, however, the Representatives shall not have completed such arrangements within such 24-hour period, then:

(a) if the number of Defaulted Securities does not exceed 10% of the number of Securities to be purchased on such date, each of the non-defaulting Underwriters shall be obligated, severally and not jointly, to purchase the full amount thereof in the proportions that their respective underwriting obligations hereunder bear to the underwriting obligations of all non-defaulting Underwriters; or

(b) if the number of Defaulted Securities exceeds 10% of the number of Securities to be purchased on such date, this Agreement or, with respect to any Option Closing Date which occurs after the Closing Date, the obligation of the Underwriters to purchase and of the Company to sell the Option Securities that were to have been purchased and sold on such Option Closing Date, shall terminate without liability on the part of any non-defaulting Underwriter (except that if such default occurs with respect to Option Securities after the Closing Date, this Agreement will not terminate as to Securities or Option Securities purchased prior to such termination).

No action taken pursuant to this Section 10 shall relieve any defaulting Underwriter from liability in respect of its default.

In the event of any such default which does not result in a termination of this Agreement or, in the case of an Option Closing Date which is after the Closing Date, which does not result in a termination of the obligation of the Underwriters to purchase and the Company to sell the relevant Option Securities, as the case may be, the Representatives shall have the right to postpone Closing Date or the relevant Option Closing Date, as the case may be, for a period not exceeding seven (7) days in order to effect any required changes in the Registration Statement, the General Disclosure Packages or Prospectus or in any other documents or arrangements. As used herein, the term “Underwriter” includes any person substituted for an Underwriter under this Section 10.

SECTION 11. *Notices.* All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard

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form of telecommunication. Notices to the Underwriters shall be directed to the Representatives at c/o Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, CA 94104, Attention of []; notices to the Company shall be directed to it at NewLink Genetics Corporation, 2503 South Loop Drive, Suite 5100, Ames, Iowa 50010, Attention of Chief Financial Officer.

SECTION 12. *Parties.* This Agreement shall each inure to the benefit of and be binding upon the Underwriters, the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Underwriters, the Company and their respective successors and the controlling persons and officers and directors referred to in Sections 6 and 7 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Underwriters, the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from any Underwriter shall be deemed to be a successor by reason merely of such purchase.

SECTION 13. *GOVERNING LAW AND TIME.* THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK. SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME. THE PARTIES HEREBY SUBMIT TO THE JURISDICTION OF AND VENUE IN THE FEDERAL COURTS LOCATED IN THE CITY OF NEW YORK, NEW YORK IN CONNECTION WITH ANY DISPUTE RELATED TO THIS AGREEMENT, ANY TRANSACTION CONTEMPLATED HEREBY, OR ANY OTHER MATTER CONTEMPLATED HEREBY.

SECTION 14. *Effect of Headings.* The Section and Exhibit headings herein are for convenience only and shall not affect the construction hereof.

SECTION 15. *Definitions.* As used in this Agreement, the following terms have the respective meanings set forth below:

“Applicable Time” means [] (New York time) on [], 2011.

“Capital Leases” means, collectively, those certain leases referred to in Item 5(a) (Capital Leases) of the Notes to Consolidated Financial Statements, together with any other material capital leases in effect as of the date of this Agreement.

“Capital Stock” means any Common Stock, Preferred Stock or other capital stock of the Company.

“Commission” means the Securities and Exchange Commission.

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“Company Documents” means any contracts, indentures, mortgages, deeds of trust, loan or credit agreements, bonds, notes, debentures, evidences of indebtedness, leases or other instruments or agreements to which the Company or its subsidiary is a party or by which the Company its subsidiary is bound or to which any of the property or assets of the Company or its subsidiary is subject including, without limitation, all Subject Instruments.

“Company Equity Incentive Plan” means that certain Amended and Restated Equity Incentive Plan and the Company’s 2000 Equity Incentive Plan.

“EDGAR” means the Commission’s Electronic Data Gathering, Analysis and Retrieval system.

“FINRA” means the Financial Industry Regulatory Authority.

“GAAP” means generally accepted accounting principles.

“Initial Registration Statement” means the Company’s registration statement on Form S-1 (Registration No. 333-171300), as amended (if applicable), at the time it became effective, including the Rule 430A Information.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433, relating to the Securities that (i) is required to be filed with the Commission by the Company, (ii) is a “road show” that is a “written communication” within the meaning of Rule 433(d)(8)(i) whether or not required to be filed with the Commission, or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, and all free writing prospectuses that are listed in Exhibits I and J hereto, in each case in the form furnished (electronically or otherwise) to the Underwriters for use in connection with the offering of the Securities.

“Issuer General Use Free Writing Prospectus” means any Issuer Free Writing Prospectus (other than any Issuer Pricing Free Writing Prospectus) listed in Exhibit H hereto.

“Issuer Limited Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus or an Issuer Pricing Free Writing Prospectus.

“Issuer Pricing Free Writing Prospectus” means any Issuer Free Writing Prospectus that reflects, among other things, the initial public offering price of the Securities and that is listed in Exhibit I hereto.

“Lien” means any security interest, mortgage, pledge, lien, encumbrance, claim or equity.

“Loan Documents” means, collectively, those certain loan documents referred to in Items 6 (Long-Term Debt) and 18 (Subsequent Events) of the Notes to Consolidated Financial Statements, in each case, to the extent not forgiven or otherwise discharged, paid-in-full and extinguished

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prior to the date of this Agreement, together with any other material loan documents in effect as of the date of this Agreement.

“Material License Agreements” means, collectively, those certain licensing agreements referred to in Item 15 (Licensing Agreements) of the Notes to Consolidated Financial Statements, together with any other material licensing agreements in effect as of the date of this Agreement.

“Notes Receivable” means collectively, those certain notes receivable for Common Stock of the Company referred to in Item 4 (Notes Receivable for Common Stock) of the Notes to Consolidated Financial Statements, in each case, to the extent not paid in full and cancelled or forgiven by the Company prior to the date of this Agreement (as described in Items 4 or 18 (Subsequent Events) of the Notes to Consolidated Financial Statements) or otherwise, together with those notes receivable referred to in Item 17 (Related Party Transactions) of the Notes to Consolidated Financial Statements, in each case, to the extent not repaid in full and cancelled or forgiven by the Company prior to the date of this Agreement, and any other material notes receivable for Common Stock of the Company in effect as of the date of this Agreement.

“Notes to Consolidated Financial Statements” means those certain Notes to Consolidated Financial Statements of the Company and its Subsidiary for the fiscal years ended December 31, 2009 and December 31, 2008, as prepared by KPMG LLP.

“NYSE” means the New York Stock Exchange.

“Operating Leases” means, collectively, those certain leases referred to in Items 5(b) (Operating Leases) and 18 (Subsequent Events) of the Notes to Consolidated Financial Statements, together with any other material operating leases in effect as of the date of this Agreement.

“Organizational Documents” means (a) in the case of a corporation, its certificate of incorporation (or applicable equivalent) and by-laws; (b) in the case of a limited or general partnership, its partnership certificate, certificate of formation or similar organizational document and its partnership agreement; (c) in the case of a limited liability company, its articles of organization, certificate of formation or similar organizational documents and its operating agreement, limited liability company agreement, membership agreement or other similar agreement; (d) in the case of a trust, its certificate of trust, certificate of formation or similar organizational document and its trust agreement or other similar agreement; and (e) in the case of any other entity, the organizational and governing documents of such entity.

“Preferred Stock” means, collectively, the Company’s preferred stock (including, without limitation, Series A Preferred Stock, Series AA Preferred Stock, Series AAA Preferred Stock, Series B Preferred Stock, Series BB Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock), par value \$0.01 per share.

“preliminary prospectus” means the Statutory Prospectus and any other prospectus used in connection with the offering of the Securities that was used before the Initial Registration Statement became effective or that omitted the Rule 430A Information or that was captioned “Subject to Completion.”

“Registration Statement” means the Initial Registration Statement; provided that, if a Rule 462(b) Registration Statement is filed with the Commission, then the term “Registration Statement” shall also include such Rule 462(b) Registration Statement.

“Repayment Event” means any event or condition which gives the holder of any bond, note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or its subsidiary.

“Rule 164,” “Rule 172,” “Rule 173,” “Rule 405,” “Rule 424(b),” “Rule 430A,” “Rule 433” and “Rule 462(b)” refer to such rules under the 1933 Act.

“Rule 430A Information” means the information included in the Prospectus that was omitted from the Initial Registration Statement at the time it became effective but that is deemed to be a part of the Initial Registration Statement at the time it became effective pursuant to Rule 430A.

“Rule 462(b) Registration Statement” means a registration statement filed by the Company pursuant to Rule 462(b) for the purpose of registering any of the Securities under the 1933 Act, including the documents incorporated by reference therein and the Rule 430A Information.

“Sarbanes-Oxley Act” means the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder or implementing the provisions thereof.

“Series A Preferred Stock” means the Company’s Series A Preferred Stock, par value \$0.01 per share.

“Series AA Preferred Stock” means the Company’s Series AA Preferred Stock, par value \$0.01 per share.

“Series AAA Preferred Stock” means the Company’s Series AAA Preferred Stock, par value \$0.01 per share.

“Series B Preferred Stock” means the Company’s Series B Preferred Stock, par value \$0.01 per share.

“Series BB Preferred Stock” means the Company’s Series BB Preferred Stock, par value \$0.01 per share.

“Series C Preferred Stock” means the Company’s Series C Preferred Stock, par value \$0.01 per share.

“Series D Preferred Stock” means the Company’s Series D Preferred Stock, par value \$0.01 per share.

“Series E Preferred Stock” means the Company’s Series E Preferred Stock, par value \$0.01 per share.

“Statutory Prospectus” means the preliminary prospectus dated October 26, 2011, relating to the Securities in the form first furnished to the Underwriters for use in connection with the offering of the Securities.

“Subject Instruments” means the Notes Receivable, the Capital Leases, the Operating Leases, the Loan Documents, the Warrants, the Company Equity Incentive Plan, the Material License Agreements, the agreements governing the Pre-Closing Transactions and all other instruments, agreements and documents filed as exhibits to the Registration Statement pursuant to Rule 601(b)(10) of Regulation S-K of the Commission; provided that if any instrument, agreement or other document filed as an exhibit to the Registration Statement as aforesaid has been redacted or if any portion thereof has been deleted or is otherwise not included as part of such exhibit (whether pursuant to a request for confidential treatment or otherwise), the term “Subject Instruments” shall nonetheless mean such instrument, agreement or other document, as the case may be, in its entirety, including any portions thereof which shall have been so redacted, deleted or otherwise not filed.

“Warrants” means, collectively, those certain warrants to purchase shares of Common Stock of the Company referred to in Item 11(e) (Additional Preferences) of the Notes to Consolidated Financial Statements, in each case, to the extent not fully exercised by the holder thereof prior to the date of this Agreement, together with any other warrants to purchase equity securities of the Company in effect as of the date of this Agreement.

“1933 Act” means the Securities Act of 1933, as amended.

“1933 Act Regulations” means the rules and regulations of the Commission under the 1933 Act.

“1934 Act” means the Securities Exchange Act of 1934, as amended.

“1934 Act Regulations” means the rules and regulations of the Commission under the 1934 Act.

“1940 Act” means the Investment Company Act of 1940, as amended.

deemed to include the copy filed with the Commission pursuant to EDGAR; all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433, are not required to be filed with the Commission) shall be deemed to include the copy thereof filed with the Commission pursuant to EDGAR; and all references in this Agreement to “supplements” to the Statutory Prospectus, any other preliminary prospectus, any General Disclosure Package or the Prospectus shall include, without limitation, any supplements, “wrappers” or similar materials prepared in connection with any offering, sale or private placement of any Securities by the Underwriters outside of the United States.

SECTION 16. Permitted Free Writing Prospectuses. The Company represents, warrants and agrees that, unless it obtains the prior consent of the Representatives, and each Underwriter, severally and not jointly, represents, warrants and agrees that, unless it obtains the prior consent of the Company and the Representatives, it has not made and will not make any offer relating to the Securities that would constitute an “issuer free writing prospectus,” as defined in Rule 433, or that would otherwise constitute a “free writing prospectus,” as defined in Rule 405, required to be filed with the Commission. Any such free writing prospectus consented to by the Representatives or by the Company and the Representatives, as the case may be, is hereinafter referred to as a “Permitted Free Writing Prospectus.” The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an “issuer free writing prospectus,” as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit H or Exhibit I hereto are Permitted Free Writing Prospectuses.

SECTION 17. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) each of the Underwriters is acting solely as an underwriter in connection with the public offering of the Securities and no fiduciary, advisory or agency relationship between the Company, on the one hand, and any of the Underwriters, on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether or not any of the Underwriters has advised or is advising the Company on other matters, and none of the Underwriters has any obligation to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(b) the public offering price of the Securities and the price to be paid by the Underwriters for the Securities set forth in this Agreement were established by the Company following discussions and arm’s-length negotiations with the Representatives;

(c) it is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(d) in connection with each transaction contemplated by this Agreement and the process leading to such transactions, each of the Underwriters is and has been acting solely as principal and not as fiduciary, advisor or agent of the Company or any of its affiliates, stockholders, creditors or employees or any other party;

(e) none of the Underwriters has provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated by this Agreement and it has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;

(f) it is aware that the Underwriters and their respective affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that none of the Underwriters has any obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(g) it waives, to the fullest extent permitted by law, any claims it may have against any of the Underwriters for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that none of the Underwriters shall have any liability (whether direct or indirect, in contract, tort or otherwise) to it in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on its behalf or in right of it or the Company or any stockholders, employees or creditors of Company.

[Signature Page Follows]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement among the Underwriters and the Company in accordance with its terms.

Very truly yours,

NEWLINK GENETICS CORPORATION

By: _____

Name:

Title:

CONFIRMED AND ACCEPTED, as of the
date first above written:

STIFEL, NICOLAUS & COMPANY, INCORPORATED

By: _____
Authorized Signatory

CANACCORD GENUITY INC.

By: _____
Authorized Signatory

For themselves and as Representatives of the Underwriters named in Exhibit A hereto.

[Signature Page to Underwriting Agreement]

EXHIBIT A

<u>Name of Underwriter</u>	<u>Number of Initial Securities</u>
Stifel, Nicolaus & Company, Incorporated	
Canaccord Genuity Inc.	
Robert W. Baird & Co.	
Cantor Fitzgerald & Co.	
Total	

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EXHIBIT B

CAPITALIZATION OF SUBSIDIARY OF THE COMPANY

<u>Holder</u>	<u>Shares of Common Stock</u>
NewLink Genetics Corporation	100

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EXHIBIT C-1

LIST OF CERTAIN SECURITYHOLDERS OF THE COMPANY

C-1-1

EXHIBIT C-2

LIST OF DIRECTORS AND OFFICERS

C-2-1

EXHIBIT D

FORM OF LOCK-UP AGREEMENT

LOCK-UP AGREEMENT

NewLink Genetics Corporation

Stifel, Nicolaus & Company, Incorporated
Canaccord Genuity Inc.

As Representatives of the several Underwriters
c/o Stifel, Nicolaus & Company, Incorporated
One Montgomery Street
Suite 3700
San Francisco, CA 94104

Ladies and Gentlemen:

This agreement is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") between NewLink Genetics Corporation, a Delaware corporation (the "Company"), Stifel, Nicolaus & Company Incorporated ("Stifel") and Canaccord Genuity Inc. ("Canaccord"), as representatives of a group of underwriters (the "Underwriters"), and the other parties thereto (if any) to be named therein, relating to a proposed underwritten public offering of common stock (the "Common Stock") of the Company.

In order to induce you and the other Underwriters to enter into the Underwriting Agreement, and in light of the benefits that the offering of the Common Stock will confer upon the undersigned in its capacity as a securityholder and/or an officer, director or employee of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each Underwriter that, during the period beginning on and including the date of the Underwriting Agreement through and including the date that is the 180th day after the date of the Underwriting Agreement, the undersigned will not, without the prior written consent of Stifel and Canaccord, directly or indirectly:

(i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of any shares of the Company's Common Stock or

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preferred stock or other capital stock (collectively, "Capital Stock") or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or

(ii) enter into any swap or other agreement, arrangement or transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for any Common Stock or other Capital Stock,

whether any transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock, other Capital Stock, other securities, in cash or otherwise. Moreover, if:

- (1) during the last 17 days of such 180-day restricted period, the Company issues an earnings release or material news or a material event relating to the Company occurs, or
- (2) prior to the expiration of such 180-day restricted period, the Company announces that it will release earnings results or becomes aware that material news or a material event will occur during the 16-day period beginning on the last day of such 180-day restricted period,

the restrictions imposed by this agreement shall continue to apply until the expiration of the 18-day period beginning on the date of issuance of the earnings release or the occurrence of the material news or material event, as the case may be, unless Stifel and Canaccord waive, in writing, such extension. For the avoidance of doubt, in no event shall the restrictions imposed by this agreement extend past 214 days after date of the Underwriting Agreement.

If the undersigned is an officer or director of the Company, (i) the undersigned agrees that the foregoing restrictions shall be equally applicable to any issuer-directed or "friends and family" shares of Common Stock that the undersigned may purchase in the proposed public offering; (ii) Stifel and Canaccord agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock or other capital stock of the Company, Stifel and Canaccord will notify the Company of the impending release or waiver, and (iii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by Stifel and Canaccord hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

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The undersigned hereby acknowledges and agrees that written notice of any extension of the 180-day restricted period pursuant to the provisions of the second paragraph of this agreement will be delivered by Stifel and Canaccord to the Company and that any such notice properly delivered will be deemed to have been given to, and received by, the undersigned. The undersigned further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this agreement during the period from and including the date of this agreement through and including the 34th day following the expiration of the 180-day restricted period, the undersigned will give prior notice thereof to the Company and will not consummate any such transaction or take any such action unless it has received written confirmation from the Company that such restricted period (as the same may have been extended pursuant to the second paragraph of this agreement) has expired.

Notwithstanding the provisions set forth in the second paragraph of this agreement, the undersigned may, without the prior written consent of Stifel and Canaccord, transfer any Common Stock or other Capital Stock or any securities convertible into or exchangeable or exercisable for Common Stock or other Capital Stock:

- (1) if the undersigned is a natural person, as a bona fide gift or gifts, or by will or intestacy, to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, or as a bona fide gift or gifts to a charity or educational institution, and
- (2) if the undersigned is a partnership or a limited liability company, to a partner or member, as the case may be, of such partnership or limited liability company if, in any such case, such transfer is not for value,

provided, however, that in the case of any transfer described in clause (1) or (2) above, it shall be a condition to the transfer that (A) the transferee executes and delivers to Stifel and Canaccord, acting on behalf of the Underwriters, not later than one business day prior to such transfer, a written agreement, in substantially the form of this agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise satisfactory in form and substance to Stifel and Canaccord, and (B) such transfer is not reported or required to be reported in any public report or filing with the Securities and Exchange Commission or otherwise, and the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfer during such 180-day restricted period (as the same may be extended as described above). For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned.

Additionally, the restriction in the second paragraph of this agreement shall not apply to the exercise of options to purchase Common Stock of the Company held by the undersigned as of the date hereof (provided that (x) the consideration for such exercise consists entirely of cash, (y) such transaction is not reported or required to be reported in any public report or filing with

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the Securities and Exchange Commission or otherwise, and the undersigned does not otherwise voluntarily effect any public filing or report regarding such transaction during such 180-day restricted period (as the same may be extended as described above), and (z) the shares of such Common Stock received upon exercise thereof shall continue to be subject to such restriction for all purposes under this Agreement).

The undersigned further agrees that (i) it will not, during such 180-day restricted period (as the same may be extended as described above), make any demand or request for or exercise any right with respect to the registration under the Securities Act of 1933, as amended (the "1933 Act"), of any shares of Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock, and (ii) the Company may, with respect to any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock owned or held (of record or beneficially) by the undersigned, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during such 180-day restricted period (as the same may be extended as described above).

In addition, the undersigned hereby waives any and all notice requirements and rights with respect to the registration of any securities pursuant to any agreement, instrument, understanding or otherwise, including any registration rights agreement or similar agreement, to which the undersigned is a party or under which the undersigned is entitled to any right or benefit and any tag-along rights, co-sale rights or other rights to have any securities (debt or equity) included in the offering contemplated by the Underwriting Agreement or sold in connection with the sale of Common Stock pursuant to the Underwriting Agreement, provided that such waiver shall apply only to the public offering of Common Stock pursuant to the Underwriting Agreement and each registration statement filed under the 1933 Act in connection therewith.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this agreement and that this agreement has been duly authorized (if the undersigned is not a natural person), executed and delivered by the undersigned and is a valid and binding agreement of the undersigned. This agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned (if a natural person) and shall be binding upon the heirs, personal representatives, successors and assigns of the undersigned.

The undersigned acknowledges and agrees that whether or not any public offering of Common Stock actually occurs depends on a number of factors, including market conditions. If (i) the Company notifies the undersigned in writing that it does not intend to proceed with the public offering described herein or (ii) such offering is not closed on or before June 30, 2012, this agreement shall terminate immediately upon such date and be of no further force and effect.

[Signature Page Immediately Follows]

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IN WITNESS WHEREOF, the undersigned has executed and delivered this agreement as of the date first set forth above.

Yours very truly,

Print Name:

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EXHIBIT F

FORM OF COMPANY INTELLECTUAL PROPERTY COUNSEL OPINION

F-1-1

EXHIBIT G

PRICE-RELATED INFORMATION

[Insert as appropriate]

Public offering price: \$[] per share

Underwriting discounts and commissions: \$[] per share

Shares offered: [] primary, [] secondary

Over-allotment option: [] primary, [] secondary

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EXHIBIT H

ISSUER GENERAL USE FREE WRITING PROSPECTUSES

[List or state "None"]

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EXHIBIT I

ISSUER PRICING FREE WRITING PROSPECTUS

[List or state "None"]

I-1

EXHIBIT J

FORM OF PRESS RELEASE

NewLink Genetics Corporation

[Date]

NewLink Genetics Corporation (the "Company") announced today that Stifel, Nicolaus & Company, Incorporated and Canaccord Genuity Inc., the lead book-running managing underwriters in the Company's recent public offering of [] shares of common stock, are [waiving] [releasing] a lock-up restriction with respect to [] shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on [], [] 20[], and the shares may be sold on or after such date.

This press release is not an offer or sale of the securities in the United States or in any other jurisdiction where such offer or sale is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

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**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
NEWLINK GENETICS CORPORATION**

Charles J. Link, Jr. hereby certifies that:

ONE: The date of filing the original Certificate of Incorporation of this company with the Secretary of State of the State of Delaware was June 4, 1999 under the name NewLink Genetics Corporation.

TWO: He is the duly elected and acting Chief Executive Officer of NewLink Genetics Corporation, a Delaware corporation.

THREE: The Certificate of Incorporation of this company is hereby amended and restated to read as follows:

I

The name of this company is NewLink Genetics Corporation (the "Company").

II.

The address of the registered office of the Company in the State of Delaware is:

2711 Centerville Road, Suite 400
Wilmington, DE 19808
County of New Castle

The name of the Company's registered agent at said address is Corporation Service Company.

III.

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("**DGCL**").

IV.

A. This corporation is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the corporation is authorized to issue is 43,833,334 shares. 38,833,334 shares shall be Common Stock, each having a par value of one cent (\$.01). 5,000,000 shares shall be Preferred Stock, each having a par value of one cent (\$.01).

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B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby expressly authorized to provide for the issue of all of any of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the DGCL. The Board of Directors is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the stock of the corporation entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

C. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the corporation for their vote; *provided, however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

V.

For the management of the business and for the conduct of the affairs of the corporation, and in further definition, limitation and regulation of the powers of the corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

1. NUMBER OF DIRECTORS. The management of the business and the conduct of the affairs of the corporation shall be vested in its Board of Directors. The number of directors which shall constitute the Board of Directors shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board of Directors.

2. BOARD OF DIRECTORS. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the initial public offering pursuant to an effective registration statement under the Securities Act of

classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

3. REMOVAL OF DIRECTORS

a. Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances, following the closing of the Initial Public Offering, neither the Board of Directors nor any individual director may be removed without cause.

b. Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of at least two-thirds of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors.

4. **VACANCIES.** Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

5. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the corporation shall be given in the manner provided in the Bylaws of the corporation.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the corporation shall be eliminated to the fullest extent permitted by the DGCL, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Company.

FIVE: This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware by the Board of Directors and the stockholders of the Corporation.

IN WITNESS WHEREOF, NEWLINK GENETICS CORPORATION has caused this Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer this _____ day of _____, 2011.

NEWLINK GENETICS CORPORATION

By: _____
Charles J. Link, Jr.
Chief Executive Officer

AMENDED AND RESTATED BYLAWS
OF
NEWLINK GENETICS CORPORATION
(A DELAWARE CORPORATION)

AMENDED AND RESTATED BYLAWS
OF
NEWLINK GENETICS CORPORATION
(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place Of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("DGCL").

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors.

Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders (with respect to business other than nominations); (ii) brought specifically by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (the "1934 Act")) before an annual meeting of stockholders.

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting.

(i) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age,

business address and residence address of such nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of shares of each class of capital stock of the corporation which are owned of record and beneficially by such nominee, (4) the date or dates on which such shares were acquired and the investment intent of such acquisition, (5) with respect to each nominee for election or re-election to the Board of Directors, include a completed and signed questionnaire, representation and agreement required by Section 5(e) of these Bylaws, and (7) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named as a nominee and to serving as a director if elected); and (B) the information required by Section 5(b)(iv). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(ii) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14(a)-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation

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on a timely basis as set forth in Section 5(b)(iii), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(iv).

(iii) To be timely, the written notice required by Section 5(b)(i) or 5(b)(ii) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that, subject to the last sentence of this Section 5(b)(iii), in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(iv) The written notice required by Section 5(b)(i) or 5(b)(ii) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "Proponent" and collectively, the "Proponents"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class, series and number of shares of the corporation that are owned beneficially and of record by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(i)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(ii)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(i)) or to carry such proposal (with respect to a notice under Section 5(b)(ii)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous twelve (12) month period, including the date of the

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transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

For purposes of Sections 5 and 6, a "Derivative Transaction" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial:

- (w) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation,
- (x) which otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation,
- (y) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes, or
- (z) which provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation,

which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member.

(c) A stockholder providing written notice required by Section 5(b)(i) or (ii) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the

meeting and (ii) the date that is five (5) business days prior to the meeting and, in the event of any adjournment or postponement thereof, five (5) business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five (5) business days after the record date for the meeting. In the case of an update and supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two (2) business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two (2) business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything in Section 5(b)(iii) to the contrary, in the event that the number of directors in an Expiring Class is increased and there is no public announcement of the appointment of a director to such class, or, if no appointment was made, of the vacancy in such class, made by the corporation at least ten (10) days before the last day a

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stockholder may deliver a notice of nomination in accordance with Section 5(b)(iii), a stockholder's notice required by this Section 5 and which complies with the requirements in Section 5(b)(i), other than the timing requirements in Section 5(b)(iii), shall also be considered timely, but only with respect to nominees for any new positions in such Expiring Class created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation. For purposes of this section, an "Expiring Class" shall mean a class of directors whose term shall expire at the next annual meeting of stockholders.

(e) To be eligible to be a nominee for election or re-election as a director of the corporation pursuant to a nomination under clause (iii) of Section 5(a), such proposed nominee or a person on such proposed nominee's behalf must deliver (in accordance with the time periods prescribed for delivery of notice under Section 5(b)(iii) or 5(d), as applicable) to the Secretary at the principal executive offices of the corporation a written questionnaire with respect to the background and qualification of such proposed nominee and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the corporation in the questionnaire or (B) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the corporation, with such person's fiduciary duties under applicable law; (ii) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director of the corporation that has not been disclosed therein; (iii) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the corporation, and will comply with, all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the corporation.

(f) A person shall not be eligible for election or re-election as a director unless the person is nominated either in accordance with clause (ii) of Section 5(a), or in accordance with clause (iii) of Section 5(a). Except as otherwise required by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(iv)(D) and 5(b)(iv)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nominations or such business may have been solicited or received.

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(g) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a)(iii) of these Bylaws.

(h) For purposes of Sections 5 and 6,

(i) "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act; and

(ii) "affiliates" and "associates" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "1933 Act").

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption).

(b) The Board of Directors shall determine the time and place, if any, of such special meeting. Upon determination of the time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. No business may be transacted at such special meeting otherwise than specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(i). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(i) of these Bylaws shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day

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following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(d) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors to be considered pursuant to Section 6(c) of these Bylaws.

Section 7. Notice Of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present

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in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment And Notice Of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners Of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote

in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List Of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number And Term Of Office. The authorized number of directors of the corporation shall be fixed in accordance with the Certificate of Incorporation. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the initial classification of the Board of Directors, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following such initial classification, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following such initial classification, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less

than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, *provided, however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships

of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, it shall be deemed effective at the time of delivery to the Secretary. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer or a majority of the authorized number of directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic

transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 21. Quorum And Voting.

(a) Unless the Certificate of Incorporation requires a greater number, and except with respect to questions related to indemnification arising under Section 43 for which a quorum shall be one-third of the exact number of directors fixed from time to time, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 22. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 23. Fees And Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 24. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 24, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 24 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any Director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the

meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 25. Lead Independent Director. The Chairman of the Board of Directors, or if the Chairman is not an independent director, one of the independent directors, may be designated by the Board of Directors as lead independent director to serve until replaced by the Board of Directors (“Lead Independent Director”). The Lead Independent Director will: with the Chairman of the Board of Directors, establish the agenda for regular Board meetings and serve as chairman of Board of Directors meetings in the absence of the Chairman of the Board of Directors; establish the agenda for meetings of the independent directors; coordinate with the committee chairs regarding meeting agendas and informational requirements; preside over meetings of the independent directors; preside over any portions of meetings of the Board of Directors at which the evaluation or compensation of the Chief Executive Officer is presented or discussed; preside over any portions of meetings of the Board of Directors at which the performance of the Board of Directors is presented or discussed; and perform such other duties as may be established or delegated by the Chairman of the Board of Directors.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Lead Independent Director, or if the Lead Independent Director is absent, the Chief Executive Officer (if a director), or, if a Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary or other officer or director directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer. The Board of Directors may also appoint one or more Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure And Duties Of Officers.

(a) **General.** All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) **Duties of Chairman of the Board of Directors.** The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) **Duties of Chief Executive Officer.** The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors or the Lead Independent Director has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) **Duties of President.** The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors, the Lead Independent Director, or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(e) **Duties of Vice Presidents.** The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(f) **Duties of Secretary.** The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any

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committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(g) **Duties of Chief Financial Officer.** The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer. The President may direct the Treasurer, if any, or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(h) **Duties of Treasurer.** Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 29. Delegation Of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation

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shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or by other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution Of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting Of Securities Owned By The Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form And Execution Of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or

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any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of

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stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution Of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration Of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting.

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Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors, Executive Officers, Employees and Other Agents.

(a) **Directors and Executive Officers.** The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "executive officers" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act to the extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) **Other Officers, Employees and Other Agents.** The corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) **Expenses.** The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he

is or was a director or executive officer, of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding provided, however, that if the DGCL requires, an advancement of expenses incurred by a director or executive officer in his or her capacity as a director or executive officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this section, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this section to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or

proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(i) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(ii) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(iii) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(iv) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(v) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this section.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) **Notice To Stockholders.** Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for

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purposes other than stockholder meetings may be sent by US mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) **Notice To Directors.** Any notice required to be given to any director may be given by the method stated in subsection (a), as otherwise provided in these Bylaws, or by overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) **Affidavit Of Mailing.** An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) **Methods of Notice.** It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) **Notice To Person With Whom Communication Is Unlawful.** Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) **Notice to Stockholders Sharing an Address.** Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within sixty (60) days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

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ARTICLE XIII

AMENDMENTS

Section 45. Subject to the limitations set forth in Section 43(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. Any adoption, amendment or repeal of the Bylaws of the corporation by the Board of Directors shall require the approval of a majority of the directors then serving. The stockholders also shall have power to adopt, amend or repeal the Bylaws of the corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS

Section 46. Loans To Officers. Except as otherwise prohibited by applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

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James C. T. Linfield
(720) 566-4010
linfieldjct@cooley.com

November 7, 2011

NewLink Genetics Corporation
2503 South Loop Drive, Suite 5100
Ames, IA 50010

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by NewLink Genetics Corporation, a Delaware corporation, (the "Company") of a Registration Statement (No. 333-171300) on Form S-1 (the "**Registration Statement**") with the Securities and Exchange Commission, including a related prospectus filed with the Registration Statement (the "**Prospectus**"), covering an underwritten public offering of up to 6,325,000 shares (the "**Shares**") of the Company's common stock, par value \$0.01, including up to 825,000 shares of common stock that may be sold pursuant to the exercise of an over-allotment option, such Shares to be sold at an offering price consistent with that described in the last sentence of Instruction to Paragraph (a) of Rule 430A under the Securities Act of 1933, as amended.

In connection with this opinion, we have examined and relied upon the Registration Statement and Prospectus, the Company's Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws and its forms of Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws to be effective in connection with the closing of the offering of the Shares in accordance with the Registration Statement and Prospectus, and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials, and the due execution and delivery of all documents, where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought independently to verify such matters. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Registration Statement and the Prospectus will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus and to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

Cooley LLP

By: /s/ James C.T. Linfield
James C.T. Linfield, Partner

LOCK-UP AGREEMENT

NewLink Genetics Corporation

Public Offering of Common Stock

Dated as of September 1, 2011

Stifel, Nicolaus & Company, Incorporated
Canaccord Genuity Inc.

As Representatives of the several Underwriters
c/o Stifel, Nicolaus & Company, Incorporated
One Montgomery Street
Suite 3700
San Francisco, CA 94104

Ladies and Gentlemen:

This agreement is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") between NewLink Genetics Corporation, a Delaware corporation (the "Company"), Stifel, Nicolaus & Company Incorporated ("Stifel") and Canaccord Genuity Inc. ("Canaccord"), as representatives of a group of underwriters (the "Underwriters"), and the other parties thereto (if any) to be named therein, relating to a proposed underwritten public offering of common stock (the "Common Stock") of the Company.

In order to induce you and the other Underwriters to enter into the Underwriting Agreement, and in light of the benefits that the offering of the Common Stock will confer upon the undersigned in its capacity as a securityholder and/or an officer, director or employee of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each Underwriter that, during the period beginning on and including the date of the Underwriting Agreement through and including the date that is the 180th day after the date of the Underwriting Agreement, the undersigned will not, without the prior written consent of Stifel and Canaccord, directly or indirectly:

(i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of any shares of the Company's Common Stock or preferred stock or other capital stock (collectively, "Capital Stock") or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or

(ii) enter into any swap or other agreement, arrangement or transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for any Common Stock or other Capital Stock,

whether any transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock, other Capital Stock, other securities, in cash or otherwise. Moreover, if:

- (1) during the last 17 days of such 180-day restricted period, the Company issues an earnings release or material news or a material event relating to the Company occurs, or
- (2) prior to the expiration of such 180-day restricted period, the Company announces that it will release earnings results or becomes aware that material news or a material event will occur during the 16-day period beginning on the last day of such 180-day restricted period,

the restrictions imposed by this agreement shall continue to apply until the expiration of the 18-day period beginning on the date of issuance of the earnings release or the occurrence of the material news or material event, as the case may be, unless Stifel and Canaccord waive, in writing, such extension. For the avoidance of doubt, in no event shall the restrictions imposed by this agreement extend past 214 days after date of the Underwriting Agreement.

If the undersigned is an officer or director of the Company, (i) the undersigned agrees that the foregoing restrictions shall be equally applicable to any issuer-directed or "friends and family" shares of Common Stock that the undersigned may purchase in the proposed public offering; (ii) Stifel and Canaccord agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock or other capital stock of the Company, Stifel and Canaccord will notify the Company of the impending release or waiver, and (iii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by Stifel and Canaccord hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned hereby acknowledges and agrees that written notice of any extension of the 180-day restricted period pursuant to the provisions of the second paragraph of this agreement will be delivered by Stifel and Canaccord to the Company and that any such notice properly delivered will be deemed to have been given to, and received by, the undersigned. The undersigned further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this agreement during the period from and including the date of this agreement through and including the 34th day following the expiration of the 180-day restricted

period, the undersigned will give prior notice thereof to the Company and will not consummate any such transaction or take any such action unless it has received written confirmation from the Company that such restricted period (as the same may have been extended pursuant to the second paragraph of this agreement) has expired.

Notwithstanding the provisions set forth in the second paragraph of this agreement, the undersigned may, without the prior written consent of Stifel and Canaccord, transfer any Common Stock or other Capital Stock or any securities convertible into or exchangeable or exercisable for Common Stock or other Capital Stock:

- (1) if the undersigned is a natural person, as a bona fide gift or gifts, or by will or intestacy, to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, or as a bona fide gift or gifts to a charity or educational institution, and
- (2) if the undersigned is a partnership or a limited liability company, to a partner or member, as the case may be, of such partnership or limited liability company if, in any such case, such transfer is not for value,

provided, however, that in the case of any transfer described in clause (1) or (2) above, it shall be a condition to the transfer that (A) the transferee executes and delivers to Stifel and Canaccord, acting on behalf of the Underwriters, not later than one business day prior to such transfer, a written agreement, in substantially the form of this agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise satisfactory in form and substance to Stifel and Canaccord, and (B) such transfer is not reported or required to be reported in any public report or filing with the Securities and Exchange Commission or otherwise, and the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfer during such 180-day restricted period (as the same may be extended as described above). For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned.

Additionally, the restriction in the second paragraph of this agreement shall not apply to the exercise of options to purchase Common Stock of the Company held by the undersigned as of the date hereof (provided that (x) the consideration for such exercise consists entirely of cash, (y) such transaction is not reported or required to be reported in any public report or filing with the Securities and Exchange Commission or otherwise, and the undersigned does not otherwise voluntarily effect any public filing or report regarding such transaction during such 180-day restricted period (as the same may be extended as described above), and (z) the shares of such Common Stock received upon exercise thereof shall continue to be subject to such restriction for all purposes under this Agreement).

The undersigned further agrees that (i) it will not, during such 180-day restricted period (as the same may be extended as described above), make any demand or request for or exercise any right with respect to the registration under the Securities Act of 1933, as amended

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(the "1933 Act"), of any shares of Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock, and (ii) the Company may, with respect to any Common Stock or other Capital Stock or any securities convertible into or exercisable or exchangeable for Common Stock or other Capital Stock owned or held (of record or beneficially) by the undersigned, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during such 180-day restricted period (as the same may be extended as described above).

In addition, the undersigned hereby waives any and all notice requirements and rights with respect to the registration of any securities pursuant to any agreement, instrument, understanding or otherwise, including any registration rights agreement or similar agreement, to which the undersigned is a party or under which the undersigned is entitled to any right or benefit and any tag-along rights, co-sale rights or other rights to have any securities (debt or equity) included in the offering contemplated by the Underwriting Agreement or sold in connection with the sale of Common Stock pursuant to the Underwriting Agreement, provided that such waiver shall apply only to the public offering of Common Stock pursuant to the Underwriting Agreement and each registration statement filed under the 1933 Act in connection therewith.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this agreement and that this agreement has been duly authorized (if the undersigned is not a natural person), executed and delivered by the undersigned and is a valid and binding agreement of the undersigned. This agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned (if a natural person) and shall be binding upon the heirs, personal representatives, successors and assigns of the undersigned.

The undersigned acknowledges and agrees that whether or not any public offering of Common Stock actually occurs depends on a number of factors, including market conditions. If (i) the Company notifies the undersigned in writing that it does not intend to proceed with the public offering described herein or (ii) such offering is not closed on or before June 30, 2012, this agreement shall terminate immediately upon such date and be of no further force and effect.

[Signature Page Immediately Follows]

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IN WITNESS WHEREOF, the undersigned has executed and delivered this agreement as of the date first set forth above.

Yours very truly,

Print Name:

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NEWLINK GENETICS CORPORATION

2010 NON-EMPLOYEE DIRECTORS' STOCK AWARD PLAN

ADOPTED BY THE BOARD OF DIRECTORS: OCTOBER 29, 2010; AMENDED JULY 1, 2011

APPROVED BY THE STOCKHOLDERS: JANUARY 7, 2011

1. GENERAL.

(a) **Eligible Stock Award Recipients.** The persons eligible to receive Stock Awards are the Non-Employee Directors of the Company.

(b) **Available Stock Awards.** The Plan provides for the grant of the following Stock Awards: (i) Nonstatutory Stock Options, (ii) Stock Appreciation Rights, (iii) Restricted Stock Awards, (iv) Restricted Stock Unit Awards, and (v) Other Stock Awards.

(c) **Purpose.** The Company, by means of the Plan, seeks to retain the services of its Non-Employee Directors, to secure and retain the services of new Non-Employee Directors and to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate by giving them an opportunity to benefit from increases in value of the Common Stock through the granting of Stock Awards.

2. ADMINISTRATION.

(a) **Administration by Board.** The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) **Powers of Board.** The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) With respect to Stock Awards issued pursuant to Sections 5(a) and 5(b), to determine the provisions of each Stock Award to the extent not specified in the Plan.

(ii) With respect to Stock Awards issued pursuant to Section 5(d), to determine from time to time (A) which of the persons eligible under the Plan shall be granted Stock Awards; (B) when and how each Stock Award shall be granted; (C) what type or combination of types of Stock Awards shall be granted; (D) the provisions of each Stock Award granted (which need not be identical), including the time or times when a person shall be permitted to receive cash or Common Stock pursuant to a Stock Award; (E) the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person; and (F) the Fair Market Value applicable to a Stock Award.

(iii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan or Stock Award fully effective.

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(iv) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Stock Awards granted under the Plan into compliance therewith, subject to the limitations, if any, of applicable law. However, except as provided in Section 10(a) relating to Capitalization Adjustments, to the extent required by applicable law or listing requirements, stockholder approval shall be required for any amendment of the Plan that either (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (D) materially extends the term of the Plan, or (E) expands the types of Stock Awards available for issuance under the Plan. Except as provided above, rights under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(v) To effect, at any time and from time to time, with the consent of any adversely affected Participant, (A) the reduction of the exercise price (or strike price) of any outstanding Option or SAR under the Plan; (B) the cancellation of any outstanding Option or SAR under the Plan and the grant in substitution thereof of (1) a new Option or SAR under the Plan or another equity plan of the Company covering the same or a different number of shares of Common Stock, (2) a Restricted Stock Award, (3) a Restricted Stock Unit Award, (4) an Other Stock Award, (5) cash and/or (6) other valuable consideration (as determined by the Board, in its sole discretion); or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(vi) To amend the Plan or a Stock Award as provided in Section 11.

(vii) To terminate or suspend the Plan as provided in Section 12.

(viii) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan.

(c) **Delegation to Committee.**

(i) **General.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such

(ii) **Rule 16b-3 Compliance.** The Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) **Share Reserve.** Subject to Section 10(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock of the Company that may be issued pursuant to Stock Awards after the Effective Date shall not exceed five hundred thousand (500,000) shares. For clarity, the limitation in this Section 3(a) is a limitation in the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 8(a). Shares may be issued in connection with a merger or acquisition as permitted by, as applicable, NASDAQ Listing Rule 5635(c), NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable stock exchange rules, and such issuance shall not reduce the number of shares available for issuance under the Plan. Furthermore, if a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares Common Stock that may be available for issuance under the Plan.

(b) **Reversion of Shares to the Share Reserve.** If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited shall revert to and again become available for issuance under the Plan. Any shares reacquired, withheld or not issued by the Company pursuant to Section 9(e) or as consideration for the exercise of a Stock Award shall again become available for issuance under the Plan. For the avoidance of doubt, if an appreciation distribution in respect of a Stock Appreciation Right is paid in shares of Common Stock, the number of shares subject to the Stock Award that are not delivered to the Participant shall remain available for subsequent issuance under the Plan.

(c) **Source of Shares.** The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

The Initial and Annual Grants as set forth in Sections 5(a) and 5(b) automatically shall be granted under the Plan to all Non-Employee Directors who meet the specified criteria. Stock Awards may also be granted to Non-Employee Directors as discretionary grants as set forth in Section 5(d).

5. NON-DISCRETIONARY AND DISCRETIONARY GRANTS.

(a) **Initial Grants.** Without any further action of the Board, each person who after the IPO Date is elected or appointed for the first time to be a Non-Employee Director automatically shall, upon the date of his or her initial election or appointment to be a Non-Employee Director, be granted an Option (the "**Initial Grant**") to purchase 25,000 shares of Common Stock on the terms and conditions set forth herein.

(b) **Annual Grants.** Without any further action of the Board, on the date of each Annual Meeting, commencing with the first Annual Meeting following the IPO Date, each person who is then a Non-Employee Director automatically shall be granted an Option (the "**Annual Grant**") to purchase, on the terms and conditions set forth herein:

(i) 15,000 shares of Common Stock; plus

(ii) 7,500 shares of Common Stock for Non-Employee Directors who are serving as the chair of the Audit, Compensation or Nominating and Corporate Governance Committee, or as Lead Independent Director on the date of grant; plus

(iii) 5,000 shares of Common Stock for Non-Employee Directors who are serving (but not as the chair) on the Audit, Compensation or Nominating and Corporate Governance Committee on the date of grant.

(c) **Determination of Initial and Annual Grants.** The Board may, at any time, provide for Initial and Annual Grants covering a number of shares of Common Stock different than those numbers designated in Sections 5(a) and 5(b), respectively, and may provide that some or all of such grants may instead be in any of the forms of Stock Awards described in Section 7. If the Board does not make such a determination, all Initial and Annual Grants shall be for the number of shares of Common Stock designated in Section 5(a) and 5(b), respectively and in the form of Options described in Section 6.

(d) **Discretionary Grants.** In addition to non-discretionary grants pursuant to Sections 5(a) and 5(b), the Board, in its sole discretion, may grant Stock Awards to one or more Non-Employee Directors in such numbers and subject to such other provisions as it shall determine. The numbers and other provisions of such Stock Awards need not be identical.

6. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR shall be in such form and shall contain such terms and conditions as required by the Plan. Each Option or SAR shall contain such additional terms and conditions, not inconsistent with the Plan, as the Board shall deem appropriate. Each Option or SAR shall include (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

(a) **Term.** No Option or SAR shall be exercisable after the expiration of ten (10) years from the date of its grant or such shorter period specified in the Stock Award Agreement.

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(b) **Exercise Price.** The exercise price (or strike price) of each Option or SAR shall be not less than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Option or SAR is granted

(c) **Purchase Price for Options.** The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid, to the extent permitted by applicable law, by any combination of the following methods of payment:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock; or

(iv) by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; *provided, further*, that shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the “net exercise,” (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations.

(d) **Exercise and Payment of a SAR.** To exercise any outstanding Stock Appreciation Right, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right. The appreciation distribution payable on the exercise of a Stock Appreciation Right will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the Stock Appreciation Right) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such Stock Appreciation Right, and with respect to which the Participant is exercising the Stock Appreciation Right on such date, over (B) the strike price that will be determined by the Board at the time of grant of the Stock Appreciation Right. The appreciation distribution in respect to a Stock Appreciation Right may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(e) **Transferability.** An Option or SAR shall not be transferable except by will or by the laws of descent and distribution and to such further extent as permitted by the Rule as to Use of Form S-8 specified in the General Instructions of the Form S-8 Registration Statement

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under the Securities Act, and shall be exercisable during the lifetime of the Participant only by the Participant. Notwithstanding the foregoing, the Participant may, by delivering written notice to the Company, in a form satisfactory to the Company, designate a third party who, in the event of the death of the Participant, shall thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant’s estate shall be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise.

(f) **Option Vesting Generally.** Options shall vest as follows:

(i) **Initial Grant.** Thirty-three percent (33%) of the shares shall vest on the first anniversary of the date of such Initial Grant recipient’s election as a Non-Employee Director and the remaining sixty-seven percent (67%) of the shares shall vest in a series of twenty-four (24) successive equal monthly installments over the two (2)-year period following the first anniversary of the date of election, subject to Participant’s Continuous Service as of each such date.

(ii) **Annual Grant.** Fifty percent (50%) of the shares shall vest on the first anniversary of the date of grant and the remaining fifty percent (50%) of the shares shall vest in a series of twelve (12) successive equal monthly installments over the twelve (12)-month period following the first anniversary of the date of grant, subject to Participant’s Continuous Service as of each such date; *provided, however* that at the date of the second Annual Meeting following the date of grant, the unvested portion of the Annual Grant, if any, shall become fully vested and exercisable immediately prior to the date of such Annual Meeting.

(iii) **Discretionary Grant.** At the time of grant of an Option pursuant to Section 5(d), the Board may impose such restrictions or conditions to the vesting of the Options as it, in its sole discretion, deems appropriate.

(g) **Termination of Continuous Service.** In the event that a Participant’s Continuous Service terminates (other than upon the Participant’s death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service) but only within such period of time ending on the earlier of (i) the date three (3) months following the termination of the Participant’s Continuous Service (or such longer or shorter period specified in the applicable Stock Award Agreement, which period shall not be less than 30 days), or (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Stock Award Agreement (as applicable), the Option or SAR (as applicable) shall terminate.

(h) Extension of Termination Date. In the event that the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR shall terminate on the earlier of (i) the expiration of a total period of

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three (3) months (that need not be consecutive) after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement. In addition, unless otherwise provided in a Participant's Stock Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service would violate the Company's insider trading policy, then the Option or SAR shall terminate on the earlier of (i) the expiration of a period equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

(i) Disability of Participant. In the event that a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination of Continuous Service or (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Stock Award Agreement (as applicable), the Option or SAR (as applicable) shall terminate.

(j) Death of Participant. In the event that (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the three (3) month period after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death, or (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the time specified herein, the Option or SAR (as applicable) shall terminate.

7. PROVISIONS RELATING TO STOCK AWARDS OTHER THAN OPTIONS AND SARS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate shall be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical; provided, however, that each Restricted Stock Award Agreement shall conform to (through incorporation

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of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement shall be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board shall determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical; *provided, however*, that each Restricted Stock Unit Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) **Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

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(iii) **Payment.** A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) **Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) **Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) **Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) **Other Stock Awards.** Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 6 and the preceding provisions of this Section 7. Subject to the provisions of the Plan, the Board shall have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

8. COVENANTS OF THE COMPANY.

(a) **Availability of Shares.** During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock reasonably required to satisfy such Stock Awards.

(b) **Securities Law Compliance.** The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable

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to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant shall not be eligible for the grant of a Stock Award or the subsequent issuance of Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify or Minimize Taxes.** The Company shall have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company shall have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

9. MISCELLANEOUS.

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

(b) **Stockholder Rights.** No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of the Stock Award pursuant to its terms, if applicable, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(c) **No Service Rights.** Nothing in the Plan, any instrument executed thereunder, or Stock Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate as a Non-Employee Director or shall affect the right of the Company or an Affiliate to terminate the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(d) **Investment Assurances.** The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances

given pursuant to such requirements, shall be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement,

a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(e) **Withholding Obligations.** The Participant may satisfy any federal, state or local tax withholding obligation relating to the exercise or acquisition of Common Stock under a Stock Award by any of the following means (in addition to the Company's right to withhold from any compensation paid to the Participant by the Company) or by a combination of such means: (i) tendering a cash payment; (ii) authorizing the Company to withhold shares from the shares of Common Stock issued or otherwise issuable to the Participant as a result of the exercise or acquisition of Common Stock under the Stock Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) authorizing the Company to withhold cash from a Stock Award settled in cash; (iv) authorizing the Company to withhold payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Stock Award Agreement.

(f) **Electronic Delivery.** Any reference herein to a "written" agreement or document shall include any agreement or document delivered electronically or posted on the Company's intranet.

(g) **Deferrals.** To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is providing services to the Company. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(h) **Compliance with Section 409A.** To the extent that the Board determines that any Stock Award granted hereunder is subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Stock Award Agreements shall be interpreted in accordance with Section 409A of the Code. Notwithstanding anything to the contrary in this Plan (and unless the Stock Award Agreement specifically provides otherwise), if the Shares are publicly traded and a Participant holding a Stock Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount shall be made upon a "separation from service" before a date that is six (6) months following the date of such Participant's "separation from service" (as defined in Section

409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant's death.

10. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) **Capitalization Adjustments.** In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and number of securities for which the nondiscretionary grants of Stock Awards are made pursuant to Section 5, and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) **Dissolution or Liquidation.** In the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) shall terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, provided, however, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) **Corporate Transaction.** In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board shall take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five (5) days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants.

(d) **Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration shall occur.

11. AMENDMENT OF THE PLAN AND STOCK AWARDS.

(a) **Amendment of Plan.** Subject to the limitations, if any, of applicable law, the Board, at any time and from time to time, may amend the Plan. However, except as provided in Section 10(a) relating to Capitalization Adjustments, no amendment shall be effective unless approved by the stockholders of the Company to the extent stockholder approval is necessary to satisfy applicable law.

(b) **Stockholder Approval.** The Board, in its sole discretion, may submit any other amendment to the Plan for stockholder approval.

(c) **No Impairment of Rights.** Rights under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing.

(d) **Amendment of Stock Awards.** The Board, at any time and from time to time, may amend the terms of any one or more Stock Awards; *provided, however*, that the rights under any Stock Award shall not be impaired by any such amendment unless (i) the Company requests the consent of the Participant, and (ii) the Participant consents in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent if necessary to bring the Stock Award into compliance with Section 409A of the Code.

12. TERMINATION OR SUSPENSION OF THE PLAN

(a) **Plan Term.** The Board may suspend or terminate the Plan at any time. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) **No Impairment of Rights.** Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant.

13. EFFECTIVE DATE OF PLAN.

This Plan shall become effective on the IPO Date, but no Stock Award shall be exercised (or in the case of a Restricted Stock Award, Restricted Stock Unit Award, or Other Stock Award shall be granted) unless and until the Plan has been approved by the stockholders of the Company, which approval shall be within twelve months before or after the date the Plan is adopted by the Board.

14. CHOICE OF LAW.

The law of the state of Iowa shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

15. DEFINITIONS.

As used in the Plan, the following definitions shall apply to the capitalized terms indicated below:

(a) **"Affiliate"** means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board shall have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) **"Annual Grant"** means an Option granted annually to all Non-Employee Directors who meet the specified criteria pursuant to Section 5(b).

(c) **"Annual Meeting"** means the first annual meeting of the stockholders of the Company held each fiscal year at which the Directors are selected.

(d) **"Board"** means the Board of Directors of the Company.

(e) **"Capitalization Adjustment"** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards No. 123 (revised). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a Capitalization Adjustment.

(f) **“Change in Control”** means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the **“Subject Person”**) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur, except for a liquidation into a parent corporation;

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(v) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the **“Incumbent Board”**) cease for any reason to constitute at least a

majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Stock Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

In the event that a Change in Control affects any Stock Award that is deferred, then **“Change in Control”** shall conform to the definition of Change of Control under Section 409A of the Code, as amended, and the Treasury Department or Internal Revenue Service Regulations or Guidance issued thereunder.

(g) **“Code”** means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(h) **“Committee”** means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(i) **“Common Stock”** means the common stock of the Company.

(j) **“Company”** means NewLink Genetics Corporation, a Delaware corporation.

(k) **“Consultant”** means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, shall not cause a Director to be considered a **“Consultant”** for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(l) **“Continuous Service”** means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, shall not terminate a Participant’s Continuous Service; *provided, however*, if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant’s Continuous Service shall be considered to have terminated on the date such Entity ceases to qualify as an

Affiliate. To the extent permitted by law, the Board, in its sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of (i) any leave of absence approved by the Board, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(m) **“Corporate Transaction”** means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) the consummation of a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) the consummation of a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) the consummation of a merger, consolidation or similar transaction following which the Company is not the surviving corporation;

or

(iv) the consummation of a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(n) **“Director”** means a member of the Board.

(o) **“Disability”** means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and shall be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(p) **“Effective Date”** means the effective date of this Plan document, as set forth in Section 13.

(q) **“Employee”** means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an “Employee” for purposes of the Plan.

(r) **“Entity”** means a corporation, partnership, limited liability company or other entity.

(s) **“Exchange Act”** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(t) **“Exchange Act Person”** means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities.

(u) **“Fair Market Value”** means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock shall be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value shall be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(v) **“Initial Grant”** means an Option granted to a Non-Employee Director who meets the specified criteria pursuant to Section 5(a).

(w) **“IPO Date”** means the date of the underwriting agreement between the Company and the underwriter(s) managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering.

(x) **“Non-Employee Director”** means a Director who is not an Employee.

(y) **“Nonstatutory Stock Option”** means an Option not intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(z) “**Officer**” means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(aa) “**Option**” means a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to Section 6 of the Plan.

(bb) “**Option Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of an individual Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.

(cc) “**Other Stock Award**” means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 7(c).

(dd) “**Other Stock Award Agreement**” means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ee) “**Own,**” “**Owned,**” “**Owner,**” “**Ownership**” A person or Entity shall be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(ff) “**Participant**” means a Non-Employee Director to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(gg) “**Plan**” means this NewLink Genetics Corporation 2010 Non-Employee Directors’ Stock Award Plan.

(hh) “**Restricted Stock Award**” means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 7(a).

(ii) “**Restricted Stock Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(jj) “**Restricted Stock Unit Award**” means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 7(b).

(kk) “**Restricted Stock Unit Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement shall be subject to the terms and conditions of the Plan.

(ll) “**Rule 16b-3**” means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(mm) “**Securities Act**” means the Securities Act of 1933, as amended.

(nn) “**Stock Appreciation Right**” or “**SAR**” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 6.

(oo) “**Stock Appreciation Right Agreement**” means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement shall be subject to the terms and conditions of the Plan.

(pp) “**Stock Award**” means any right to receive Common Stock granted under the Plan, including a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right or any Other Stock Award.

(qq) “**Stock Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(rr) “**Subsidiary**” means, with respect to the Company, (i) any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%).

INDEMNITY AGREEMENT

THIS INDEMNITY AGREEMENT (this “**Agreement**”) dated as of _____, is made by and between **NEWLINK GENETICS CORPORATION**, a Delaware corporation (the “**Company**”), and _____ (“**Indemnitee**”).

RECITALS

- A.** The Company desires to attract and retain the services of highly qualified individuals as directors, officers, employees and agents.
- B.** The Company’s bylaws (the “**Bylaws**”) require that the Company indemnify its directors, and empowers the Company to indemnify its officers, employees and agents, as authorized by the Delaware General Corporation Law, as amended (the “**Code**”), under which the Company is organized and such Bylaws expressly provide that the indemnification provided therein is not exclusive and contemplates that the Company may enter into separate agreements with its directors, officers and other persons to set forth specific indemnification provisions.
- C.** Indemnitee does not regard the protection currently provided by applicable law, the Company’s governing documents and available insurance as adequate under the present circumstances, and the Company has determined that Indemnitee and other directors, officers, employees and agents of the Company may not be willing to serve or continue to serve in such capacities without additional protection.
- D.** The Company desires and has requested Indemnitee to serve or continue to serve as a director, officer, employee or agent of the Company, as the case may be, and has proffered this Agreement to Indemnitee as an additional inducement to serve in such capacity.
- E.** Indemnitee is willing to serve, or to continue to serve, as a director, officer, employee or agent of the Company, as the case may be, if Indemnitee is furnished the indemnity provided for herein by the Company.

AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Definitions.

(a) Agent. For purposes of this Agreement, the term “agent” of the Company means any person who: (i) is or was a director, officer, employee or other fiduciary of the Company or a subsidiary of the Company; or (ii) is or was serving at the request or for the convenience of, or representing the interests of, the Company or a subsidiary of the Company, as a director, officer, employee or other fiduciary of a foreign or domestic corporation, partnership, joint venture, trust or other enterprise.

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(b) Expenses. For purposes of this Agreement, the term “expenses” shall be broadly construed and shall include, without limitation, all direct and indirect costs of any type or nature whatsoever (including, without limitation, all attorneys’, witness, or other professional fees and related disbursements, and other out-of-pocket costs of whatever nature), actually and reasonably incurred by Indemnitee in connection with the investigation, defense or appeal of a proceeding or establishing or enforcing a right to indemnification under this Agreement, the Code or otherwise, and amounts paid in settlement by or on behalf of Indemnitee, but shall not include any judgments, fines or penalties actually levied against Indemnitee for such individual’s violations of law. The term “expenses” shall also include reasonable compensation for time spent by Indemnitee for which he is not compensated by the Company or any subsidiary or third party (i) for any period during which Indemnitee is not an agent, in the employment of, or providing services for compensation to, the Company or any subsidiary; and (ii) if the rate of compensation and estimated time involved is approved by the directors of the Company who are not parties to any action with respect to which expenses are incurred, for Indemnitee while an agent of, employed by, or providing services for compensation to, the Company or any subsidiary.

(c) Proceedings. For purposes of this Agreement, the term “proceeding” shall be broadly construed and shall include, without limitation, any threatened, pending, or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative or investigative nature, and whether formal or informal in any case, in which Indemnitee was, is or will be involved as a party or otherwise by reason of: (i) the fact that Indemnitee is or was a director or officer of the Company; (ii) the fact that any action taken by Indemnitee or of any action on Indemnitee’s part while acting as director, officer, employee or agent of the Company; or (iii) the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, and in any such case described above, whether or not serving in any such capacity at the time any liability or expense is incurred for which indemnification, reimbursement, or advancement of expenses may be provided under this Agreement.

(d) Subsidiary. For purposes of this Agreement, the term “subsidiary” means any corporation or limited liability company of which more than 50% of the outstanding voting securities or equity interests are owned, directly or indirectly, by the Company and one or more of its subsidiaries, and any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary.

(e) Independent Counsel. For purposes of this Agreement, the term “independent counsel” means a law firm, or a partner (or, if applicable, member) of such a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company or Indemnitee in any matter material to either such party, or (ii) any other party to the proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term “independent counsel” shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee’s rights under this Agreement.

2. **Agreement to Serve.** Indemnitee will serve, or continue to serve, as a director, officer, employee or agent of the Company or any subsidiary, as the case may be, faithfully and to the best of his or her ability, at the will of such corporation (or under separate agreement, if such agreement exists), in the capacity Indemnitee currently serves as an agent of such corporation, so long as Indemnitee is duly appointed or elected and qualified in accordance with the applicable provisions of the bylaws or other applicable charter documents of such corporation, or until such time as Indemnitee tenders his or her resignation in writing; provided, however, that nothing contained in this Agreement is intended as an employment agreement between Indemnitee and the Company or any of its subsidiaries or to create any right to continued employment of Indemnitee with the Company or any of its subsidiaries in any capacity.

The Company acknowledges that it has entered into this Agreement and assumes the obligations imposed on it hereby, in addition to and separate from its obligations to Indemnitee under the Bylaws, to induce Indemnitee to serve, or continue to serve, as a director, officer, employee or agent of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director, officer, employee or agent of the Company.

3. **Indemnification.**

(a) **Indemnification in Third Party Proceedings.** Subject to Section 10 below, the Company shall indemnify Indemnitee to the fullest extent permitted by the Code, as the same may be amended from time to time (but, only to the extent that such amendment permits Indemnitee to broader indemnification rights than the Code permitted prior to adoption of such amendment), if Indemnitee is a party to or threatened to be made a party to or otherwise involved in any proceeding, for any and all expenses, actually and reasonably incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of such proceeding.

(b) **Indemnification in Derivative Actions and Direct Actions by the Company.** Subject to Section 10 below, the Company shall indemnify Indemnitee to the fullest extent permitted by the Code, as the same may be amended from time to time (but, only to the extent that such amendment permits Indemnitee to broader indemnification rights than the Code permitted prior to adoption of such amendment), if Indemnitee is a party to or threatened to be made a party to or otherwise involved in any proceeding by or in the right of the Company to procure a judgment in its favor, against any and all expenses actually and reasonably incurred by Indemnitee in connection with the investigation, defense, settlement, or appeal of such proceedings.

4. **Indemnification of Expenses of Successful Party.** Notwithstanding any other provision of this Agreement, to the extent that Indemnitee has been successful on the merits or otherwise in defense of any proceeding or in defense of any claim, issue or matter therein, including the dismissal of any action without prejudice, the Company shall indemnify Indemnitee against all expenses actually and reasonably incurred in connection with the investigation, defense or appeal of such proceeding.

5. **Partial Indemnification.** If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of any expenses actually and reasonably incurred by Indemnitee in the investigation, defense, settlement or appeal of a proceeding, but is precluded by applicable law or the specific terms of this Agreement to indemnification for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

6. **Advancement of Expenses.** To the extent not prohibited by law, the Company shall advance the expenses incurred by Indemnitee in connection with any proceeding, and such advancement shall be made within twenty (20) days after the receipt by the Company of a statement or statements requesting such advances (which shall include invoices received by Indemnitee in connection with such expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditures made that would cause Indemnitee to waive any privilege accorded by applicable law shall not be included with the invoice) and upon request of the Company, an undertaking to repay the advancement of expenses if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. Advances shall be unsecured, interest free and without regard to Indemnitee's ability to repay the expenses. Advances shall include any and all expenses actually and reasonably incurred by Indemnitee pursuing an action to enforce Indemnitee's right to indemnification under this Agreement, or otherwise and this right of advancement, including expenses incurred preparing and forwarding statements to the Company to support the advances claimed. Indemnitee acknowledges that the execution and delivery of this Agreement shall constitute an undertaking providing that Indemnitee shall, to the fullest extent required by law, repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. The right to advances under this Section shall continue until final disposition of any proceeding, including any appeal therein. This Section 6 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 10(b).

7. **Notice and Other Indemnification Procedures.**

(a) **Notification of Proceeding.** Indemnitee will notify the Company in writing promptly upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any proceeding or matter which may be subject to indemnification or advancement of expenses covered hereunder. The failure of Indemnitee to so notify the Company shall not relieve the Company of any obligation which it may have to Indemnitee under this Agreement or otherwise.

(b) **Request for Indemnification and Indemnification Payments.** Indemnitee shall notify the Company promptly in writing upon receiving notice of any demand, judgment or other requirement for payment that Indemnitee reasonably believes to be subject to indemnification under the terms of this Agreement, and shall request payment thereof by the Company. Indemnification payments requested by Indemnitee under Section 3 hereof shall be made by the Company no later than sixty (60) days after receipt of the written request of Indemnitee. Claims for advancement of expenses shall be made under the provisions of Section 6 herein.

(c) **Application for Enforcement.** In the event the Company fails to make timely payments as set forth in Sections 6 or 7(b) above, Indemnitor shall have the right to apply to any court of competent jurisdiction for the purpose of enforcing Indemnitee's right to indemnification or advancement of expenses pursuant to this Agreement. In such an enforcement hearing or proceeding, the burden of proof shall be on the Company to prove that indemnification or advancement of expenses to Indemnitee is not required under this Agreement or permitted by applicable law. Any determination by the Company (including its Board of Directors, stockholders or independent counsel) that Indemnitee is not entitled to indemnification hereunder, shall not be a defense by the Company to the action nor create any presumption that Indemnitee is not entitled to indemnification or advancement of expenses hereunder.

(d) **Indemnification of Certain Expenses.** The Company shall indemnify Indemnitee against all expenses incurred in connection with any hearing or proceeding under this Section 7 unless the Company prevails in such hearing or proceeding on the merits in all material respects.

8. **Assumption of Defense.** In the event the Company shall be requested by Indemnitee to pay the expenses of any proceeding, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, or to participate to the extent permissible in such proceeding, with counsel reasonably acceptable to Indemnitee. Upon assumption of the defense by the Company and the retention of such counsel by the Company, the Company shall not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same proceeding, provided that Indemnitee shall have the right to employ separate counsel in such proceeding at Indemnitee's sole cost and expense. Notwithstanding the foregoing, if Indemnitee's counsel delivers a written notice to the Company stating that such counsel has reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense or the Company shall not, in fact, have employed counsel or otherwise actively pursued the defense of such proceeding within a reasonable time, then in any such event the fees and expenses of Indemnitee's counsel to defend such proceeding shall be subject to the indemnification and advancement of expenses provisions of this Agreement.

9. **Insurance.** To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, officers, employees, or agents of the Company or of any subsidiary ("**D&O Insurance**"), Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, officer, employee or agent under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Company has D&O Insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

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10. Exceptions.

(a) **Certain Matters.** Any provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement to indemnify Indemnitee on account of any proceeding with respect to (i) remuneration paid to Indemnitee if it is determined by final judgment or other final adjudication that such remuneration was in violation of law (and, in this respect, both the Company and Indemnitee have been advised that the Securities and Exchange Commission believes that indemnification for liabilities arising under the federal securities laws is against public policy and is, therefore, unenforceable and that claims for indemnification should be submitted to appropriate courts for adjudication, as indicated in Section 10(d) below); (ii) a final judgment rendered against Indemnitee for an accounting, disgorgement or repayment of profits made from the purchase or sale by Indemnitee of securities of the Company against Indemnitee or in connection with a settlement by or on behalf of Indemnitee to the extent it is acknowledged by Indemnitee and the Company that such amount paid in settlement resulted from Indemnitee's conduct from which Indemnitee received monetary personal profit, pursuant to the provisions of Section 16(b) of the Securities Exchange Act of 1934, as amended, or other provisions of any federal, state or local statute or rules and regulations thereunder; (iii) a final judgment or other final adjudication that Indemnitee's conduct was in bad faith, knowingly fraudulent or deliberately dishonest or constituted willful misconduct (but only to the extent of such specific determination); or (iv) on account of conduct that is established by a final judgment as constituting a breach of Indemnitee's duty of loyalty to the Company or resulting in any personal profit or advantage to which Indemnitee is not legally entitled. For purposes of the foregoing sentence, a final judgment or other adjudication may be reached in either the underlying proceeding or action in connection with which indemnification is sought or a separate proceeding or action to establish rights and liabilities under this Agreement.

(b) **Claims Initiated by Indemnitee.** Any provision herein to the contrary notwithstanding, the Company shall not be obligated to indemnify or advance expenses to Indemnitee with respect to proceedings or claims initiated or brought by Indemnitee against the Company or its directors, officers, employees or other agents and not by way of defense, except (i) with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or under any other agreement, provision in the Bylaws or Certificate of Incorporation or applicable law, or (ii) with respect to any other proceeding initiated by Indemnitee that is either approved by the Board of Directors or Indemnitee's participation is required by applicable law. However, indemnification or advancement of expenses may be provided by the Company in specific cases if the Board of Directors determines it to be appropriate.

(c) **Unauthorized Settlements.** Any provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement to indemnify Indemnitee under this Agreement for any amounts paid in settlement of a proceeding effected without the Company's written consent. Neither the Company nor Indemnitee shall unreasonably withhold consent to any proposed settlement; provided, however, that the Company may in any event decline to consent to (or to otherwise admit or agree to any liability for indemnification hereunder in respect of) any proposed settlement if the Company is also a party in such proceeding and determines in good faith that such settlement is not in the best interests of the Company and its stockholders.

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(d) **Securities Act Liabilities.** Any provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement to indemnify Indemnitee or otherwise act in violation of any undertaking appearing in and required by the rules and regulations promulgated under the Securities Act of 1933, as amended (the "Act"), or in any registration statement filed with the SEC under the Act. Indemnitee acknowledges that paragraph (h) of Item 512 of Regulation S-K currently generally requires the Company to undertake in connection with any registration

statement filed under the Act to submit the issue of the enforceability of Indemnitee's rights under this Agreement in connection with any liability under the Act on public policy grounds to a court of appropriate jurisdiction and to be governed by any final adjudication of such issue. Indemnitee specifically agrees that any such undertaking shall supersede the provisions of this Agreement and to be bound by any such undertaking.

11. Nonexclusivity and Survival of Rights. The provisions for indemnification and advancement of expenses set forth in this Agreement shall not be deemed exclusive of any other rights which Indemnitee may at any time be entitled under any provision of applicable law, the Company's Certificate of Incorporation, Bylaws or other agreements, both as to action in Indemnitee's official capacity and Indemnitee's action as an agent of the Company, in any court in which a proceeding is brought, and Indemnitee's rights hereunder shall continue after Indemnitee has ceased acting as an agent of the Company and shall inure to the benefit of the heirs, executors, administrators and assigns of Indemnitee. The obligations and duties of the Company to Indemnitee under this Agreement shall be binding on the Company and its successors and assigns until terminated in accordance with its terms. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her corporate status prior to such amendment, alteration or repeal. To the extent that a change in the Code, whether by statute or judicial decision, permits greater indemnification or advancement of expenses than would be afforded currently under the Company's Certificate of Incorporation, Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, by Indemnitee shall not prevent the concurrent assertion or employment of any other right or remedy by Indemnitee.

12. Term. This Agreement shall continue until and terminate upon the later of: (a) five (5) years after the date that Indemnitee shall have ceased to serve as a director or and/or officer, employee or agent of the Company; or (b) one (1) year after the final termination of any proceeding, including any appeal then pending, in respect to which Indemnitee was granted rights of indemnification or advancement of expenses hereunder.

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No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against an Indemnitee or an Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of five (5) years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such five-year period; provided, however, that if any shorter period of limitations is otherwise applicable to such cause of action, such shorter period shall govern.

13. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who, at the request and expense of the Company, shall execute all papers required and shall do everything that may be reasonably necessary to secure such rights, including the execution of such documents necessary to enable the Company effectively to bring suit to enforce such rights.

14. Interpretation of Agreement. It is understood that the parties hereto intend this Agreement to be interpreted and enforced so as to provide indemnification to Indemnitee to the fullest extent now or hereafter permitted by law.

15. Severability. If any provision of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever, (a) the validity, legality and enforceability of the remaining provisions of the Agreement (including without limitation, all portions of any paragraphs of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that are not themselves invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (b) to the fullest extent possible, the provisions of this Agreement (including, without limitation, all portions of any paragraph of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that are not themselves invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable and to give effect to Section 14 hereof.

16. Amendment and Waiver. No supplement, modification, amendment, or cancellation of this Agreement shall be binding unless executed in writing by the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

17. Notice. Except as otherwise provided herein, any notice or demand which, by the provisions hereof, is required or which may be given to or served upon the parties hereto shall be in writing and, if by telegram, telecopy or telex, shall be deemed to have been validly served, given or delivered when sent, if by overnight delivery, courier or personal delivery, shall be deemed to have been validly served, given or delivered upon actual delivery and, if mailed, shall be deemed to have been validly served, given or delivered three (3) business days after deposit in the United States mail, as registered or certified mail, with proper postage prepaid and addressed to the party or parties to be notified at the addresses set forth on the signature page of this Agreement (or such other address(es) as a party may designate for itself by like notice). If to the Company, notices and demands shall be delivered to the attention of the Secretary of the Company.

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18. Governing Law. This Agreement shall be governed exclusively by and construed according to the laws of the State of Delaware, as applied to contracts between Delaware residents entered into and to be performed entirely within Delaware.

19. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute but one and the same Agreement. Only one such counterpart need be produced to evidence the existence of this Agreement.

20. Headings. The headings of the sections of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction hereof.

21. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements, understandings and negotiations, written and oral, between the parties with respect to the subject matter of this Agreement; provided, however, that this Agreement is a supplement to and in furtherance of the Company's Certificate of Incorporation, Bylaws, the Code and any other applicable law, and shall not be deemed a substitute therefor, and does not diminish or abrogate any rights of Indemnitee thereunder.

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement effective as of the date first above written.

COMPANY

NEWLINK GENETICS CORPORATION

By: _____
Charles Link, Jr.
Chief Executive Officer

INDEMNITEE

Signature of Indemnitee

Print or Type Name of Indemnitee

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

**LICENSE AGREEMENT BETWEEN LANKENAU INSTITUTE FOR MEDICAL
RESEARCH
AND NEWLINK GENETICS CORPORATION**

This License Agreement between Lankenau Institute for Medical Research (“LIMR” or “Institute”) and NewLink Genetics Corporation. (“NewLink” or “Company”) (referred to as “Agreement”) for the licensing of certain intellectual property rights to NewLink is made on this 7th day of July, 2005 (“Effective Date”).

WHEREAS, LIMR owns certain property rights developed by its employee-investigator, George Prendergast, PhD, and

WHEREAS, NewLink would like to license from LIMR certain technology developed by Dr. Prendergast for the purpose of developing the technology into a marketable therapeutic or diagnostic product.

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions.

- a. Affiliate(s): Affiliate means any individual, company or entity, in whatever country organized, directly or indirectly, controlling, controlled by, or under common control with NewLink. For purposes of this Agreement, “control” shall mean, direct or indirect beneficial ownership of more than fifty percent (50%) of the voting stock or equity of, or more than fifty percent (50%) interest in the income of, such individual, company or entity.
- b. Company: Company shall mean NewLink and its Affiliates as defined above.
- c. Consideration. “Consideration” shall mean any and all revenues or payments in-kind received by NewLink from a third party as consideration for the grant of a sublicense under the rights granted to NewLink by LIMR pursuant to Article 2, excluding sums received:
 - (i) for the purchase of an equity interest in NewLink at fair market

value; (ii) as payments or reimbursements for research and development work performed by or on behalf of NewLink; (iii) for purchase of a supply of Licensed Product; (iv) for repayment of any loans, credit or credit line extended by NewLink to such sublicensee; or (v) in the form of a loan, as credit or pursuant to a credit line to NewLink. Notwithstanding the foregoing, if NewLink receives revenue in consideration for the grant of a sublicense under the licenses granted to NewLink hereunder and such sublicense also includes the grant of a license or sublicense to other technology controlled by NewLink but not acquired from LIMR, then the foregoing amount shall be adjusted by a percentage that fairly represents, as reasonably determined by the parties, the contribution of the LIMR Technology and the Patent Rights to the total revenue received by NewLink.

- d. Licensed Product: Licensed Product shall mean any article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered by a Valid Claim within the Patent Rights. Licensed Product shall not include other products used in combination with Licensed Product that do not constitute an article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered by a Valid Claim within the Patent Rights.
- e. LIMR Technology. “LIMR Technology” shall mean the technology described in [*].
- f. Net Sales. “Net Sales” shall mean the gross consideration actually collected by COMPANY and/or any Affiliate from transfer of any Licensed Product to a third party customer, less:
 1. revenue credited or rebated on returns and allowances, and bad debts;
 2. discounts, in amounts customary in the trade and to the extent actually granted, for quantity purchases, for prompt payments and for wholesalers and distributors;
 3. transportation and delivery charges or allowances;
 4. customs, duties; and
 5. sales, use, excise, value-added and other taxes or other governmental charges measured by sales.
- g. Patent Rights: Patent Rights shall mean any and all rights and interest held, acquired or otherwise controlled by LIMR in and to any issued patents and patent applications, including provisional patent applications, any divisions, continuations and continuations

-in-part thereof, and any foreign counterparts worldwide of such patents or patent applications, that directly arise from the prosecution of [*].

- h. Valid Claim: A Valid Claim means a claim of a patent under Patent Rights that (i) has not expired or been abandoned; (ii) has not been disclaimed; (iii) has not been canceled or superseded, or if cancelled or superseded, has not been reasserted; (iv) has not been revoked, held invalid or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country from which no further appeal has or may be taken; and (v) a claim of a pending patent application under the Patent Rights, which claim has been subject to prosecution for protection for no more than five years.

2. Exclusive License.

- a. LIMR hereby grants to Company an exclusive, world-wide, royalty-bearing license ("License") under the LIMR Technology and the Patent Rights for LIMR Technology described in [*] and the Patent Rights to make, have made, use and/or sell Licensed Product in the field of human and animal therapeutics and diagnostics (the "Field"). Notwithstanding the foregoing, LIMR expressly reserves a non-transferable royalty-free right to use the Patent Rights and LIMR Technology in the Field itself, including use by its staff and researchers, for non-commercial educational and research purposes only. LIMR agrees to notify NewLink and provide NewLink a "first look" at any additional research findings that directly result from the use of the technology described in [*].
- b. RAND Compounds. Pursuant to and subject to the terms of the RAND Agreement between LIMR and the National Cancer Institute ("NCI") of the National Institutes of Health (NCI Contract No. High-Throughput Screening for Inhibitors of Indoleamine 2,3-dioxygenase (IDO)), the IDO inhibitory compounds that are identified by an ongoing screen of the compound collection at the NCI will be shared with NewLink.

3. Sublicenses. Company and its Affiliate(s) shall have the right to grant sublicenses to third parties under LIMR Technology and Patent Rights to make, have made, use and sell the Licensed Products. Such sublicenses shall be in writing and expressly subject to the terms of this Agreement. Any sublicense agreement that does not materially conform to this Agreement shall constitute a material breach of this Agreement by Company. Company agrees to be

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responsible for the performance hereunder by its sub licensees. At LIMR's request, Company will provide LIMR with a copy of each sublicense in order to allow LIMR to audit such sublicenses to assure conformity with the Agreement. If LIMR performs such a review on any sublicense agreements, those audited agreements, not including any subsequent amendments or changes to the agreements, shall be deemed to conform to this Agreement. Upon termination of this Agreement, any such sublicenses will revert directly to LIMR, which shall have the right to cancel any such sublicense if such sublicensee is not then in compliance with the terms of its sublicense and the terms of this Agreement.

4. Term and Termination. The Term of this Agreement shall terminate upon expiration of the last to expire Valid Claim included in the Patent Rights. In addition, the Agreement may terminate earlier than the end of the Term under the following circumstances:

- A. If NewLink is unable to achieve any of the milestones within the time periods set forth in Article 10, then LIMR shall, in accordance with the terms of this paragraph 4, have the right and option to reduce the NewLink's exclusive license to a nonexclusive license or revoke the license in its entirety, provided that prior to making this determination, LIMR shall
1. Give NewLink written notice of perceived failure to meet a milestone, describing the failure, describing the preferred method of cure and the proposed action to be taken by LIMR in the event of non-cure in writing at the address listed within this Agreement.
 2. Provide NewLink a 90-day cure period during which NewLink shall be allowed to establish that it has met or will meet the milestones.
- B. LIMR may terminate this Agreement immediately by providing NewLink written notice of termination, if
1. NewLink ceases to function as a going concern;
 2. a petition or action is filed or taken by or against NewLink under any insolvency or bankruptcy law that is not dismissed within sixty (60) days;
 3. a receiver, assignee or other liquidating officer is appointed for all or substantially all of the assets of NewLink; or
 4. NewLink makes an assignment for the benefit of creditors.
- C. If NewLink fails to make any payment whatsoever due and payable to LIMR hereunder, LIMR shall have the right to terminate this Agreement effective on thirty (30) days written notice, unless, NewLink shall make all such payments to LIMR within said thirty (30) day period provided that the payments demanded by LIMR are not disputed by NewLink. In that event, the parties shall have 90 days to solve the dispute at the end of which they shall submit to binding arbitration.
- D. NewLink shall have the right to terminate this Agreement at any time on 90 days' notice to LIMR, and upon payment of all amounts due LIMR

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through the effective date of the termination. In the event NewLink terminates the Agreement, all rights and obligations hereunder revert to LIMR.

- E. Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination. NewLink and any sub licensee thereof may, however, after the effective date of such termination, sell all LICENSED PRODUCTS, and complete LICENSED PRODUCTS in the process of manufacture at the time of such termination and sell the same, provided that NewLink shall make the payments to LIMR as required by Articles 8 & 9 of this Agreement and shall submit the reports as required by Article 12 hereof.
5. **Ownership.** LIMR represents that it owns the rights to the LIMR Technology and the Patent Rights and has the right to convey the LIMR Technology and the Patent Rights to Company.
6. **Patent Prosecution:** NewLink shall be responsible, at its sole cost and expense, for the preparation, filing, prosecution and maintenance of any patent applications filed by and patents issued to LIMR as assignee under the Patent Rights pursuant to this Agreement. Upon execution of this Agreement, LIMR will make no further patent prosecution decisions and shall not incur additional expenses with respect to the Patent Rights without prior written consent of NewLink, which shall not be unreasonably withheld. With respect to costs incurred prior to execution of this Agreement, NewLink shall reimburse LIMR provided LIMR has provided NewLink with appropriate documentation outlining the costs incurred.
7. **License Fee.**
- a. Initial Fee. Upon the Effective Date, NewLink shall pay LIMR a License Initiation Fee of [*].
 - b. Annual Fee. NewLink shall pay LIMR an annual license fee of [*] due on each anniversary of the Effective Date.
8. **Royalty:** Company shall pay LIMR an earned royalty of [*] based on the value of Net Sales of the Licensed Products, unless additional royalties must be paid for another technology to allow use of Licensed Products in humans. In the event additional technologies must be licensed (e.g. formulation, cross linking) by NewLink from any third party, NewLink shall be entitled to offset against royalties otherwise due to LIMR [*]; provided, however, in no event shall NewLink pay LIMR a [*] royalty of less than [*]. NewLink agrees to pay LIMR and [*], the potential licensor of related technologies, a total [*] royalty of [*]. If the aggregate of the [*] royalties paid to LIMR and [*] is less than [*], NewLink shall pay LIMR the additional percentage amount necessary to equal an aggregate [*] royalty of [*]. In the event NewLink sublicenses the Licensed Product,

NewLink shall pay LIMR an earned royalty of [*] of any Consideration received by NewLink for the sublicense during the Term.

9. **Payment:** Royalties shall be payable by NewLink quarterly in U.S. dollars within thirty (30) days of the end of the calendar quarter. NewLink shall render quarterly reports to LIMR on or before the last day of April, July, October, and January showing the amount of Net Sales received by NewLink during the most recently concluded fiscal quarter and the appropriate Royalties due to LIMR. Each such report shall be accompanied by payment of the Royalties due for such fiscal quarter. NewLink shall provide LIMR audited annual financials within 30 days of completion of NewLink's audit, after the first commercial sale of any Licensed Product. NewLink shall pay estimated royalties payments quarterly with an annual reconciliation and of all payments performed within 30 days of receipt of audited numbers.
10. **Milestones and Associated Payments:** NewLink has represented to LIMR, to induce LIMR to issue this exclusive license, that it will commit itself to a diligent program of developing and exploiting Licensed Product(s) so that public utilization will result there from. As evidence thereof, Company shall adhere to the following milestones:

	Milestone	Payment
1	NewLink will [*] within [*]	None
2	NewLink will [*] within [*]	NewLink shall pay LIMR [*] upon [*].
3	Once [*] NewLink shall [*]	NewLink shall pay LIMR [*] upon [*].
4	Upon [*], NewLink shall [*]	NewLink shall pay LIMR [*] upon [*].
5	[*]. NewLink shall [*] within [*].	NewLink shall pay LIMR [*] at the [*].

All milestone fees are payable only once, regardless of the number of times the milestone is achieved and regardless of the number of License Products developed by NewLink.

11. **Reports and Accounting.** NewLink shall report to LIMR once a year during which time it describes its product development, financial information and milestone status.
12. **Indemnity.** Company shall defend and indemnify and hold LIMR, its affiliates, parent corporation, trustees, officers, agents and employees (the "Indemnitees") harmless from any judgments and other liabilities based upon claims or causes of action brought by a third party against LIMR or its employees which arise out of [*], or from the [*], except to the extent that such judgments or liabilities arise in whole or in part from [*], provided that LIMR promptly notifies Company of any such claim coming to its attention and that it cooperates with Company in the defense of such claim. If any such claims or causes of action are made, Company's counsel, subject to LIMR's approval,

which shall not be unreasonably withheld, shall defend LIMR. LIMR reserves the right to be represented by its own counsel at its own expense.

13. **Insurance.** At such time as any product, process, service relating to, or developed pursuant to, this Agreement is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by Company or by a sub licensee, Affiliate or agent of Company, Company shall at its sole cost and expense, procure and maintain comprehensive general liability insurance in amounts not less than \$3,000,000 per incident and naming the Indemnitees as additional insureds. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual

which are in excess of \$250,000 annual aggregate) such self-insurance program must be acceptable to LIMR and Main Line Health Vice President Insurance. Such insurance will be considered primary as to any other valid and collectible insurance, but only as to acts of the named insured. The minimum amounts of insurance coverage required shall not be construed to create a limit of Company's liability with respect to its indemnification under this Agreement. Company shall provide LIMR with written evidence of such insurance upon request of LIMR. Company shall provide LIMR with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if Company does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, LIMR shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods. Company shall maintain such comprehensive general liability insurance beyond the expiration or termination of this Agreement during (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by Company or by a sub licensee, Affiliate or agent of Company and (ii) a reasonable period after the period referred to in (i) above which in no event shall be less than fifteen (15) years.

14. **Mutual Confidentiality.** Company and LIMR realize that certain information received by one party from the other pursuant to this Agreement shall be confidential. It is therefore agreed that **any information received** by one party from the other should be clearly designated in writing as "CONFIDENTIAL" at the time of transfer, shall not be disclosed by either party to any third party and shall not be used by either party for purposes other than those contemplated by this Agreement. Any information exchanged by the parties under this Agreement shall remain confidential for a period of three (3) years from the termination of the Agreement, unless or until —

- a. Said information shall become known to third parties not under any obligation of confidentiality to the disclosing party, or shall become publicly known through no fault of the receiving party, or
- b. Said information was already in the receiving party's possession prior to the disclosure of said information to the receiving party, except in cases when the information has been covered by a preexisting Confidentiality Agreement, or
- c. Said information shall be subsequently disclosed to the receiving party, by a third party not under any obligation of confidentiality to the disclosing party, or
- d. Said information is approved for disclosure by prior written consent of the disclosing party, or
- e. Said information is required to be disclosed by court order or governmental law or regulation, provided that the receiving party gives the disclosing party

prompt notice of any such requirement and cooperates with the disclosing party in attempting to limit such disclosure.

15. **Disclaimer.** Nothing contained in this Agreement shall be construed as:

- A. a warranty or representation by LIMR as to the validity or scope of any Patent Rights;
- B. a warranty or representation that any Licensed Products manufactured, used or sold will be free from infringement of patents, copyrights, or third parties, except that LIMR represents that it has no knowledge of any existing issued patents or copyrights which might be infringed;
- C. **LIMR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF LICENSED PRODUCTS.**

16. **Technical Assistance.** Throughout the term of the Agreement, LIMR agrees to permit Company and its designees to consult with its employees and agents regarding developments and enhancements made after the Effective Date relating to the Licensed Products, at such times and places as may be mutually agreed upon; provided that Company agrees to limit such consultation to five (5) employee-investigator hours per week and make suitable arrangements directly with LIMR employees and agents and to compensate for such consultation.

17. **Name.** Company shall not use and shall not permit to be used by any other person or entity the name or logo of LIMR nor any adaptation thereof, or the name of LIMR's employees, in any advertising, promotional or sales literature, or for any other purpose without prior written permission of LIMR.

18. **Governing Law.** This Agreement shall be construed, governed, interpreted and enforced according to the laws of the Commonwealth of Pennsylvania.

19. **Notices.** Any notice or communication required or permitted to be given by either party hereunder, shall be deemed sufficiently given, if mailed by certified mail, return receipt requested, and addressed to the party to whom notice is given as follows:

If to LIMR:

Karen Knudsen, Ph.D.
Director of Scientific Administration
Lankenau Institute for Medical Research
100 E. Lancaster Avenue
Wynnewood, PA 19096

With a Copy to:

Office of the General Counsel
Main Line Health
130 So. Bryn Mawr Avenue
Bryn Mawr, PA 19010

If to NewLink:

Dr. Nick Vahanian
Chief Medical and Operations Officer
2901 South Loop Drive
Suite 3900
Ames, Iowa 50010

20. Assignment. Neither party shall assign or transfer this Agreement without the express prior written consent of the other, such consent not to be unreasonably withheld. For purposes of this Agreement, an assignment or transfer of this Agreement by NewLink shall be deemed to occur in connection with (a) an express assignment or transfer, (b) a general assignment for the benefit of creditors or in connection with any bankruptcy or other debtor relief law, (c) any merger or consolidation to which NewLink is a party, regardless of whether NewLink is the surviving corporation, or (d) any other transaction pursuant to which a change would occur in the "ultimate parent entity" of NewLink. Notwithstanding the foregoing, an assignment of this Agreement by NewLink in connection with the transfer of all or substantially all of its assets or equity, or by reason of acquisition, merger, consolidation or operation of law shall not require LIMR's consent.

21. Entire Agreement. This Agreement represents the entire agreement between the parties as of the effective date hereof, and may only be subsequently altered or modified by an instrument in writing. This Agreement cancels and supersedes any and all prior oral or written agreements between the parties that relate to the subject matter of this Agreement.

22. Mediation and Arbitration. Both parties agree that they shall attempt to resolve any dispute arising from this Agreement through mediation. Both parties agree that at least one company employee, capable of negotiating an agreement on behalf of his company, shall, within three weeks of receipt of written notification of a dispute, meet with at least one employee of the other party who is also capable of negotiating an agreement on behalf of his company. If no agreement can be reached, both parties agree to meet again within a four week

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period after the initial meeting to negotiate in good faith to resolve the dispute. If no agreement can be reached after this second meeting, both parties agree to submit the dispute to binding arbitration under the Rules of The American Arbitration Association before a panel of three arbitrators.

23. Waiver. A failure by one of the parties to this Agreement to assert its rights for or upon any breach or default of this Agreement shall not be deemed a waiver of such rights nor shall any such waiver be implied from acceptance of any payment. No such failure or waiver in writing by any one of the parties hereto with respect to any rights, shall extend to or affect any subsequent breach or impair any right consequent thereon.

24. Severability. The parties agree that it is the intention of neither party to violate any public policy, statutory or common laws, and governmental or supranational regulations; that if any sentence, paragraph, clause or combination of the same is in violation of any applicable law or regulation, or is unenforceable or void for any reason whatsoever, such sentence, paragraph, clause or combinations of the same shall be inoperative and the remainder of the Agreement shall remain binding upon the parties.

25. Marking. Company agrees to mark the Licensed Products in the United States with all applicable U.S. and state Trademarks, and U.S. Patent numbers.

26. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not constitute a part hereof.

Lankenau Institute for Medical Research

NewLink Genetics Corporation

By: /s/ Edward L. Jones, Jr.

Name: /s/ Nicholas N. Vahanian

Title: Chairman

Title: Chief Medical and Operations Officer

Date: July 8, 2005

Date: July 7, 2005

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AMENDMENT #1

To Letter of Intent for Proposed CRADA #2166

“Pre-Clinical and Clinical Development of [*]”

The purpose of this amendment is to change certain terms of the Letter of Intent (LOI) for the proposed Cooperative Research and Development Agreement (CRADA) entitled “Pre-Clinical and Clinical Development of [*].” These changes are reflected below, and except for these changes, all other provisions of the original CRADA LOI remain in full force and effect. Two originals of this amendment are provided for execution; one is to remain with the National Cancer Institute (NCI) and the other copy is to remain with the Collaborator.

1. Upon final signature, the term of this CRADA Letter of Intent is extended for six months from November 23, 2007 to May 23, 2008.
2. Dr. Lee Jia is removed as an NCI Principal Investigator. The NCI Principal Investigators are Dr. Sherry Ansher and Dr. Howard Streicher.

ACCEPTED AND AGREED TO:

For the National Cancer Institute:

/s/Anna D. Barker
 Anna D. Barker, Ph.D.
 Deputy Director, NCI

01/08/08
 Date

For NewLink Genetics Corporation:

/s/Charles Link

1/17/08
 Date



CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

AMENDMENT #2

To Letter of Intent for Proposed CRADA #2166

“Pre-Clinical and Clinical Development of [*]”

The purpose of this amendment is to change certain terms of the Letter of Intent (LOI) for the proposed Cooperative Research and Development Agreement (CRADA) entitled “Pre-Clinical and Clinical Development of [*].” These changes are reflected below, and except for these changes, all other provisions of the original CRADA LOI remain in full force and effect. Two originals of this amendment are provided for execution; one is to remain with the National Cancer Institute (NCI) and the other copy is to remain with the Collaborator.

1. Upon final signature, the term of this CRADA Letter of Intent is extended for six months from May 23, 2008 to November 23, 2008.
2. Drs. Jeffrey Abrams and James Zwiebel are added as NCI Principal Investigators. The NCI Principal Investigators are Dr. Jeffrey Abrams, Dr. Sherry Ansher, Dr. James Zwiebel and Dr. Howard Streicher.

ACCEPTED AND AGREED TO:

For the National Cancer Institute:

/s/Anna D. Barker
 Anna D. Barker, Ph.D.
 Deputy Director, NCI

06/24/08
 Date

For NewLink Genetics Corporation:

/s/Nicholas Vahanian

7/7/2008
 Date



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EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT (the "Agreement") is made and entered into by and between **LANKENAU INSTITUTE FOR MEDICAL RESEARCH** ("LIMR") and **NEWLINK GENETICS CORPORATION** ("NewLink") for the licensing of certain intellectual property rights to NewLink, effective on this day of October, 2007 (the "Effective Date").

WHEREAS, LIMR owns certain technology and intellectual property rights developed by its employee(s) relating to inhibitors of Indoleamine 2, 3 Dioxygenase -2 ("IDO-2"), and

WHEREAS, LIMR has filed certain non-provisional patent applications covering such IDO-2 inhibitors and related inventions; and

WHEREAS, NewLink and LIMR intend to enter into a Collaborative Research and Development Agreement ("CRADA") covering further research to be conducted in cooperation with, and funded by, NewLink regarding inhibitors of IDO-2 (the "Sponsored Research"), to be conducted by Dr. George Prendergast at LIMR in collaboration with Dr. Michael William Malachowski in the Department of Chemistry at Bryn Mawr College (the "Investigators"), and LIMR shall provide NewLink with a copy of the term sheet on which LIMR's agreement with the Investigators will be based and a copy of the final agreement with the Investigators, subject to NewLink keeping such term sheet and final agreement confidential. ; and

WHEREAS, NewLink would like to obtain the exclusive, worldwide license rights from LIMR, and LIMR desires to grant such rights to NewLink, under such technology and intellectual property of LIMR, and under any improvements or derivatives thereof developed by LIMR, including resulting from the Sponsored Research, for the purpose of developing the technology into marketable therapeutic or diagnostic products;

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions.

- a. Affiliate(s). "Affiliate" means, with respect to NewLink, any individual, company or other business entity, in whatever country organized, that directly or indirectly controls, is controlled by, or is under common control with NewLink. For purposes of this Agreement, the term "control" (with correlative meanings for the terms "controlled by" and "under common with") shall mean that the applicable individual, company or entity owns, directly or indirectly, more than thirty-three percent (33%) of the voting stock or equity of NewLink, or otherwise has the ability to direct and manage the business affairs of NewLink (whether through contract or otherwise).
- b. Consideration. Subject to the other provisions of this Agreement, "Consideration" shall mean any and all revenues or payments in-kind received by NewLink or its Affiliates from a Sublicensee (as defined in Article 3) as consideration for the grant by NewLink of a sublicense under the rights granted to

NewLink by LIMR pursuant to Article 2(a) hereof, *but excluding* sums or amounts received: (i) for the purchase of an equity interest in NewLink (which for purposes of this Agreement shall be valued at fair market value at the time of receipt by NewLink); (ii) as payments or reimbursements for research and development work performed by or on behalf of NewLink (which reimbursement may be in the form of reasonable and typical FTE rates); (iii) for purchase or supply of Licensed Product; and (iv) as a loan, or as reimbursement of patent prosecution costs, or as payment of a share of amounts recovered in enforcing a patent or other intellectual property rights. Furthermore, if NewLink or an Affiliate receives from a Sublicensee payments or revenue, and such payments or revenue is in consideration both for the grant of a sublicense under the licenses granted to NewLink hereunder as well as for the grant of a license or sublicense to other technology controlled by NewLink but not acquired from LIMR under this Agreement, then the "Consideration", for purposes of this Agreement, shall be deemed to be such payments or revenue multiplied by a percentage that fairly represents, as reasonably determined and mutually agreed upon by the parties, the percentage contribution of the LIMR Technology and the Patent Rights to the total value of the rights licenses or sublicensed by NewLink or its Affiliate to such Sublicensee.

- c. Improvements. "Improvement" shall mean any improvement, modification, derivative, and/or enhancement of the LIMR Technology or the Patent Rights developed, acquired or otherwise controlled by LIMR at any time after the Effective Date.
- d. Licensed Product. "Licensed Product" shall mean any article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered or claimed by a Valid Claim within the Patent Rights. For clarity, a "Licensed Product" shall not include other product or material that (a) is used in combination with Licensed Product, and (b) does not constitute an article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered or claimed by a Valid Claim within the Patent Rights.
- e. LIMR Technology. "LIMR Technology" shall mean the technology and/or know-how owned or controlled by LIMR that specifically relates to the subject matter of the Patent Rights or is otherwise necessary or useful for the practice of the Patent Rights.
- f. Net Sales. "Net Sales" shall mean the gross consideration actually received or collected by NewLink and/or any Affiliate from the transfer, sale or other commercial distribution of any Licensed Product to a third party customer, less:
 - (1) revenue credited or rebated on returns and allowances, and bad debts;

- (2) discounts, in amounts customary in the trade and to the extent actually granted, for quantity purchases, for prompt payments and for wholesalers and distributors;
- (3) transportation, shipping, insurance and delivery charges or allowances;
- (4) customs, duties;
- (5) sales, use, excise, value-added and other taxes (other than the taxes on the income of the selling party or NewLink) or other governmental charges measured by sales;
- (6) governmental and managed care rebates or chargebacks to the extent actually incurred or allowed with respect to Licensed Product sold during the relevant time period to group purchasing organizations, hospitals, or other buying groups; and
- (7) retroactive price reductions that are actually allowed or granted.

Sales between or among NewLink and its Affiliates will be excluded from the computation of Net Sales, but the subsequent final sales of such Licensed Product to third parties by NewLink or its Affiliates will be included in the computation of Net Sales. In addition, transfers or dispositions of Licensed Products in commercially reasonable quantities for nominal consideration the use of which is restricted to either charitable, sampling or promotional purposes or for preclinical, clinical, manufacturing (without sale), scale-up, regulatory or governmental purposes shall not be considered a “sale” or “other commercial disposition” and shall not be included for purposes of calculating Net Sales under this Agreement. Sales of Licensed Products to Sublicensees shall be included in “Net Sales”, as are the royalty payments to NewLink (or its Affiliate) by Sublicensees on resale of such Licensed Product, the intent being that LIMR shall receive a royalty or other share or payment on any and all consideration received by NewLink or its Affiliates hereunder, unless expressly excluded in this Agreement.

If NewLink (or its Affiliate) sells a Licensed Product in combination with another active component or ingredient, which is not itself a Licensed Product (a “**Combination Product**”), for one selling price, then the “Net Sales of such Combination Product, for the purpose of determining the royalty owed, shall be the Net Sales resulting from such sale, as set forth above, multiplied by a factor that reflects the fair market value, in such Combination Product, of the Licensed Product therein, compared to the total market value of the Combination Product including its other active components or ingredients, such factor to be determined reasonably and in good faith by NewLink and LIMR.

- g. Patent Rights. “Patent Rights” shall mean (a) the patent applications identified on **Exhibit A** of this Agreement; (b) all patents and patent applications of LIMR

covering or claiming any improvement, modification, derivative, and or enhancement of the LIMR Technology or of any of the patent applications or rights or foreign counterparts described in subclauses (a), (c), (d) or (e) of this definition; (c) all continuing patent applications (including divisional, substitution, continuations and continuations-in-part) based on any of the foregoing applications; (d) all rights and interest held, acquired or otherwise controlled by LIMR in and to any patents issuing on any of the foregoing applications (including any reexaminations, reissues, renewals, inventors certifications, and extensions thereof); and (e) all foreign counterparts worldwide of any such patent applications and patents.

- h. Research Aims. “Research Aims” shall have the meaning ascribed to such term in the CRADA, as summarized in Exhibit B of this Agreement.
- i. Successful Completion. “Successful Completion” of a particular clinical trial means that such trial has been completed on sufficient numbers of subjects to meet the regulatory requirements for proceeding to the next phase of clinical trials, the final report analyzing the data from such subjects in such trial has been completed, and the results of such data support initiating the next phase of clinical trials on the drug studied in such trial.
- j. Valid Claim. A “Valid Claim” means (i) a claim of an issued patent in the Patent Rights that (a) has not expired or been abandoned; (b) has not been disclaimed; (c) has not been canceled or superseded, or if cancelled or superseded, has not been reasserted; (d) has not been revoked, held invalid or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in any country in which such patent may have issued (from which no further appeal has or may be taken); and/or (e) abandoned in accordance with or as permitted by the terms of this Agreement or by mutual written consent; or (ii) a claim included in a pending patent application under the Patent Rights, which claim is being actively prosecuted in accordance with this Agreement, has been subject to prosecution for protection for no more than five years and has not been canceled, withdrawn from consideration, finally determined to be unallowable by the applicable governmental authority in such country (and from which no appeal is or can be taken), and/or abandoned in accordance with or as permitted by the terms of this Agreement by mutual written consent.
- k. Future IDO Discoveries. “Future IDO Discoveries” means any new developments, inventions or discoveries created or developed by LIMR or its employees, agents, or subcontractors (such as by the Investigators) in connection with the Sponsored Research or otherwise that (a) relate directly to IDO-2 and/or inhibitors of IDO-2 and (b) are not covered or claimed by the Patent Rights and do not incorporate the LIMR Technology licensed under this Agreement. The discovery of [*] be considered Future IDO Discoveries.

- (1) Scientific Milestones. "Scientific Milestone" means the successful completion of a Research Aim.
- (2) Development Milestones. "Development Milestones" shall have the meaning ascribed to such term in Section 10(b) of this Agreement.

2. Exclusive License.

- a. License Grant. Subject to the retained rights of LIMR and the government set forth in subsection 2(c) below, LIMR hereby grants to NewLink the exclusive, world-wide, royalty-bearing license, with the right to grant sublicenses, to use and practice the LIMR Technology and the Patent Rights in all fields and to make, have made, use, sell, offer for sale, and/or import Licensed Product in all fields (the "License").

With respect to any Licensed Products covered by Patent Rights that have been discovered using Federal funding, NewLink and its sublicensees shall comply (to the extent applicable) with the requirements of the Bayh-Dole Act which require that "any products embodying the invention or produced through the use of the subject invention will be manufactured substantially in the United States." (United States Code, Title 35, Part II, Chapter 18, Section 204), *except* if there is an exception to such requirement, and provided that LIMR shall use reasonable efforts, if reasonably requested by NewLink, to request and obtain an exception to such requirement.

- b. RAND Compounds. Pursuant to and subject to the terms of the RAND Agreement between LIMR and the National Cancer Institute ("NCI") of the National Institutes of Health (NCI Contract No. High-Throughput Screening for Inhibitors of Indoleamine 2,3-dioxygenase (IDO)), the IDO inhibitory compounds that are identified by an ongoing screen of the compound collection at the NCI will be licensed to NewLink as Improvements.
- c. Retained Rights. Notwithstanding the foregoing, LIMR expressly reserves a non-exclusive, non-transferable, royalty-free right to use the Patent Rights and the LIMR Technology, including use by its staff and researchers, and affiliates for its internal non-commercial, educational and research purposes only, including without limitation the right of LIMR to publish its research, subject to the prior review by NewLink to the extent such publication would disclose confidential LIMR Technology licensed hereunder. LIMR shall temporarily refrain from publication for a reasonable period of time to accommodate any patent filings or other regulatory actions intended to protect any confidential LIMR Technology licensed hereunder, such period of time not to exceed

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the later of [*] from (x) the date on which such confidential LIMR Technology was [*] or (y) the date on which such confidential LIMR Technology was [*]. Further, the licenses granted to NewLink in Section 2(a) are subject to certain rights reserved by the United States government pursuant to applicable law or regulation in any inventions in the Patent Rights made with federal funding pursuant to National Institutes of Health Grant No. RO1-CA109542.

3. Sublicenses. NewLink and its Affiliates shall have the right to grant sublicenses to third parties (each, a "Sublicensee") under the LIMR Technology and Patent Rights (with the further rights to sublicense) for all purposes including to research, develop, make, have made, use and sell the Licensed Products. Such sublicenses shall be in writing and expressly subject to the terms of this Agreement, and shall not grant rights under the Patent Rights that exceed the scope of the rights expressly granted under this Agreement. Any such sublicense agreement that is materially inconsistent with this Agreement shall constitute a material breach of this Agreement by Company. NewLink agrees to require that its Sublicensees must not violate the terms of this Agreement, and that such Sublicensees shall do the same with respect to any further sublicenses, and NewLink shall use commercially reasonable efforts to enforce such obligations for the benefit of LIMR. At LIMR's request, NewLink will provide LIMR with a copy of each sublicense and subsublicense in order to allow LIMR to review such sublicenses and subsublicenses to assure consistency with this Agreement (which copy may be redacted to delete any confidential information that does not relate to the Patent Rights or LIMR Technology or the sublicense of rights thereunder). If LIMR performs such a review on any sublicense or subsublicense agreement, those agreements reviewed by LIMR, not including any subsequent amendments or changes to the agreements, shall be deemed to conform to this Agreement unless LIMR has raised an objection to one or more of such sublicense or subsublicense agreements. Upon termination of this Agreement in compliance with the notice and other provisions of this Agreement, and subject to Section 4(e) below, any such sublicenses between NewLink and its sublicensees will remain in effect and be assigned directly to LIMR, which shall have the right to cancel any such sublicense if such sublicensee is not then in compliance with the terms of its sublicense and the applicable terms of this Agreement. Notwithstanding the foregoing, LIMR shall not be responsible for any obligation of NewLink under any such agreement which obligation accrued prior to the date of such assignment and if there is any such unperformed obligation which is ongoing or which affects the obligations of the subsublicensee or its ability to perform, LIMR may elect to cancel such sublicense agreement, without liability, upon written notice to such subsublicensee. Upon such a cancellation, the subsublicensee may sell all Licensed Products in its inventory and [complete Licensed Products in the process of manufacture at the time of such termination and sell the same, provided it is not in default under its subsublicense agreement and further provided it pays to LIMR all payments required to be paid to the sublicensor thereunder and provides one or more accountings of all such sales to LIMR (i) within thirty (30) days of LIMR's

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request therefore and (ii) within thirty days after the last such sale, such accountings to be certified as true, complete and correct by such sublicensee's chief financial officer.

4. Term and Termination. The term of this Agreement shall commence as of the Effective Date and shall stay in effect until the last to expire issued Valid Claim covering Licensed Products included in the Patent Rights, unless otherwise terminated earlier as provided below in this Article 4 (collectively, the "Term").
 - a. If LIMR believes in good faith that NewLink has materially breached its obligations under Section 10(a), then LIMR shall, in accordance with the terms of this paragraph 4, have the right and option to reduce NewLink's exclusive License to a nonexclusive license or revoke the License in its entirety (by terminating the Agreement), provided that prior to taking this action:

- (1) LIMR shall provide NewLink written notice of the perceived breach, describing in detail the basis for LEVIR's belief that such perceived breach has occurred, describing the preferred method of cure and the proposed action to be taken by LIMR in the event of non-cure; and
 - (2) NewLink shall have ninety (90) days to establish that it has met or will, within such ninety (90) day period, meet the applicable obligations; if the parties are still in dispute as to whether NewLink has met such obligations or cured such breach within ninety (90) days after receipt of notice from LIMR, the dispute will be submitted to binding arbitration in accordance with Section 26(b) of this Agreement, and if such arbitration determines that NewLink materially breached its obligations under Section 10(a) and did not cure such breach, then LIMR shall have the option to terminate this Agreement or to convert the License granted to NewLink in Section 2(a) to a non-exclusive license, in each case, upon prior written notice to NewLink.
- b. LIMR may terminate this Agreement immediately by providing NewLink written notice of termination, if:
- (1) NewLink ceases to function as a going concern;
 - (2) a bankruptcy petition or action is filed or taken by or against NewLink under any United States bankruptcy law;
 - (3) a receiver, assignee or other liquidating officer is appointed with control for all or substantially all of the assets of NewLink; or
 - (4) NewLink makes an assignment for the benefit of creditors of all or substantially all its assets;

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provided, that, in the case of subclauses (b)(2), (3) or (4) above, such aforementioned circumstance is not remedied, dismissed or stayed within sixty (60) days of LIMR's notice of its intent to terminate this Agreement;

Notwithstanding anything in Sections 4(a) or (b) or 26 to the contrary, at any time that LIMR or NewLink believes that the other party has defaulted under this Agreement and that such default will irreparably harm such party, in addition to its rights under this Agreement and at law, such party shall have the right to seek all applicable equitable remedies.

- c. If NewLink fails to make any payment whatsoever due and payable to LIMR hereunder, LIMR shall have the right to terminate this Agreement effective on thirty (30) days written notice, unless NewLink shall make all such payments to LIMR within said thirty (30) day period, and provided that the payments demanded by LIMR are not disputed by NewLink. In the event of a dispute of such payments by NewLink, the parties shall use good faith efforts to resolve the dispute, which if not resolved by the end of 90 days either party may submit the dispute to binding arbitration pursuant to Section 26(b). Any disputed payments submitted to arbitration hereunder shall not be deemed due and payable unless and until determined due by the arbitrator under Section 26(b).
 - d. NewLink shall have the right to terminate this Agreement at any time on 90 days' prior written notice to LIMR, provided that NewLink shall remain obligated to complete payment of all amounts that have accrued and are owed to LIMR through the effective date of the termination. In the event NewLink terminates the Agreement, the license granted hereunder shall be deemed terminated, and all rights with respect to the subject matter thereof revert to LIMR and all further obligations of NewLink to LIMR (except for obligations accrued prior to such termination) shall automatically be terminated.
 - e. Upon expiration or termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that has accrued prior to the effective date of such termination. NewLink and any Sublicensee thereof may, however, after the effective date of such termination, sell all Licensed Products, and complete Licensed Products in the process of manufacture at the time of such termination and sell the same, provided that NewLink shall make the payments to LIMR as required by Articles 8 & 9 of this Agreement and shall submit the reports as required by Article 12 hereof.
 - f. Sections 4(e), 4(f), 8(b) (but solely with respect to sales made pursuant to Section 4(e)), 16 (solely for the period specified therein), 14, 15, 21, 22, 23, 24 and 26 shall survive termination or expiration of this Agreement.
5. Ownership. LIMR represents and warrants to NewLink that LIMR owns the rights to the LIMR Technology and the Patent Rights and has the right to license the LIMR

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Technology and the Patent Rights to NewLink, subject to the rights retained by the United States government and LIMR as described in Section 2(c).

6. Patent Prosecution. Commencing on the Effective Date, NewLink shall have the right and responsibility, at its expense and in its reasonable discretion, for the preparation, filing, prosecution and maintenance of any patent applications and patents included in the Patent Rights, in consultation with LIMR. NewLink shall provide LIMR the right to review and comment upon such patent applications prior to filing, and on all communications with patent offices in all applicable countries and jurisdictions, the selection of countries for filing of patent applications, responses to office actions, and other substantive patent documents prior to filing and the right to have such documents revised prior to filing to reflect such comments. Promptly after the Effective Date, LIMR will transfer to NewLink (or its selected counsel) all patent prosecution files for the Patent Rights, shall provide to NewLink such executed documents or instruments as needed for NewLink to undertake such prosecution efforts, and shall provide NewLink all reasonable assistance in such prosecution. NewLink shall reimburse LIMR for the reasonable out-of-pocket costs, based on detailed invoices of such costs, actually incurred in conducting such prosecution and maintenance of the Patent Rights prior to the Effective Date, not to exceed \$17,000; provided that LIMR has provided NewLink with an invoice for such costs together with appropriate documentation outlining the costs incurred. LIMR shall provide NewLink with all information necessary or useful its filings and prosecution of such Patent Rights and shall cooperate fully with NewLink so as to maximize NewLink's rights. NewLink shall not abandon or opt not to file any patent or patent application included in the Patent Rights without the prior notice to LIMR. NewLink may elect in writing to cease the continued prosecution or

maintenance of particular Patent Right in a country, and on such notice NewLink shall no longer have any further rights or responsibility for the such prosecution or maintenance, or obligation to pay any amounts therefore, or any further rights under such specific Patent Right in such country, and LIMR may in its discretion continue such prosecution Any such notice shall be given by NewLink to LIMR in sufficient time to enable LIMR an adequate time period to protect its rights, but in no case less than three (3) months prior the filing deadline imposed or promulgated by any governing or regulatory authority for filing any such protective document.

7. License Fee.

- a. Initial Fee. Upon the Effective Date, NewLink shall pay LIMR an initial one-time fee of [*].
- b. Annual Fee. NewLink shall pay LIMR an annual license maintenance fee of [*] due on or before each anniversary of the Effective Date during the Term.

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8. Royalty; Sublicense Payments.

- a. NewLink shall pay LIMR a royalty in an amount equal to [*] of the Net Sales of the Licensed Products in [*] where the [*], unless additional royalties must be paid by NewLink for another technology to allow use of Licensed Products as provided in subsection (b) below. Royalties payable under this Section 7(a) shall be payable during the Term on a country-by-country basis.
- b. In the event one or more additional technologies (including any patents related thereto) must be licensed (e.g. formulation, cross linking) by NewLink, its Affiliates, and/or Sublicensees from any third party to develop, make, use, import, sell, offer for sale, or import a Licensed Product in any country, NewLink shall be entitled to [*] royalties otherwise due to LIMR hereunder an amount [*]; provided, however, that in no event shall NewLink pay LIMR a royalty of less than [*] of Net Sales.
- c. If NewLink grants a sublicense, under the License rights granted under this Agreement to NewLink, to a Sublicensee pursuant to Article 3 hereof, NewLink shall pay LIMR [*] of any Consideration received by NewLink from such Sublicensee, for each such sublicense during the Term.
- d. No more than one royalty payment shall be due with respect to a sale of a particular Licensed Product. No multiple royalties shall be payable because any Licensed Product, or its manufacture, sale or use is covered by more than one Valid Claim in a given country.

9. Payment of Royalties. Royalties and sublicense payments shall be payable by NewLink quarterly in U.S. dollars within forty-five (45) days of the end of the calendar quarter. NewLink shall render quarterly reports to LIMR on or before the last day of April, July, October, and January, as applicable, showing the amount of Net Sales received by NewLink during the most recently concluded fiscal quarter and the appropriate royalties and sublicense payments due to LIMR certified by NewLink's chief financial officer (or comparable financial officer) as true, correct and complete. Each such report shall be accompanied by payment of the royalties and/or sublicense payments due for such fiscal quarter. After the first commercial sale of any Licensed Product pursuant to this Agreement, and upon LIMR's request and at its expense, NewLink shall provide LIMR with copies of NewLink's then-existing standard audited financial statements covering the royalties and sublicense payments due under this Agreement within thirty (30) days of LIMR's request. NewLink shall pay estimated royalties payments quarterly with an annual reconciliation and of all payments performed within 30 days of receipt of audited numbers. For the purpose of determining royalties payable under this Agreement, any Consideration NewLink receives from Sublicensees in currencies other than U.S. dollars and any Net Sales denominated in currencies other than U.S. dollars shall be converted into U.S. dollars at the same conversion rate that NewLink actually receives on such conversion at the time of the transaction in question which gave rise the Consideration.

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10. Diligence; Milestones and Associated Payments.

- a. Diligence. NewLink has represented to LIMR, to induce LIMR to issue this exclusive license, that it will commit itself to a diligent program of developing and exploiting Licensed Product(s) so that public utilization will result there from. As part of the consideration for the exclusive license granted to NewLink hereunder, NewLink has agreed to use commercially reasonable efforts to develop and exploit Licensed Product.

It is understood and agreed by the parties that the actions by any Affiliate or Sublicensee may satisfy the above obligations.

- b. Milestone Payments to LIMR.
 - (1) Upon achievement of each [*], NewLink will pay to LIMR a one-time payment of [*], for a maximum total payment of [*] for achievement of all [*].
 - (2) NewLink will pay to LIMR [*] for the [*] a Licensed Product; [*] for the [*] a Licensed Product; [*] for the [*] a Licensed Product; and [*] for the [*] a Licensed Product (the "Development Milestones"). For clarity, each Development Milestone shall be payable only once under this Agreement.
- c. Limitation on Payments for Dual Activity Products. NewLink and LIMR acknowledge that, due to the nature of IDO inhibitors, a particular Licensed Product may have activity in inhibiting both the IDO-2 target and also IDO-1 (such product, a "Dual Activity Product"). For any Dual Activity Product that is covered by the payment obligations under this Agreement, and *also* is subject to payment obligations (milestone payments and/or royalty payments) under the Exclusive License Agreement dated July 7, 2005 between the Parties, covering IDO-1 inhibitors (the "Prior License"), NewLink shall *not* owe payments under both agreements due to the achievement of the milestone event by, or sale of, such Dual Activity Product, *but rather* shall owe to LIMR the higher of the applicable milestone payment, or royalty

payment, owed for such Dual Activity Product under the terms of either the Agreement and the Prior License (based on the particular event or sale). The foregoing shall apply to all obligations under the Prior Agreement with respect to any product covered by such agreement that is a Dual Activity Product.

For the purposes of determining which licensing agreement — either this Agreement or the Prior License (as defined above) — will govern and regulate a particular inhibitor compound, each such compound will be classified either as an IDO1-specific inhibitor, an IDO2-specific inhibitor or a Dual Activity Product (an IDO1/IDO2 dual inhibitor) based [***]. A compound will be considered a Dual Activity Product when the [***] and the [***] are [***]. If the [***], then the [***] will determine whether the compound is an IDO1-specific inhibitor or an IDO-2 specific inhibitor.

11. CRADA. Concurrently with entry into this Agreement, the parties agree to the obligations set forth in Exhibit B, which is hereby made a part hereof of this Agreement, pursuant to which NewLink will provide certain funding to LIMR in support of the Sponsored Research to be conducted by the Investigators. Under such CRADA, NewLink may renew the Sponsored Research (NewLink shall base its election upon the research results and other potential corporate limitations) for additional years at an annual budget to be based on scientific needs and approved by NewLink; [***] described in Exhibit B, in consideration for such funding LIMR agrees to [***] for Future IDO Discoveries as provided in Section 13 (b). The decision to renew the CRADA for additional years shall be made at least three months prior to the expiration date of the CRADA and shall be based on a progress report submitted by LIMR to NewLink.
12. Reports and Accounting. NewLink shall provide to LIMR no less than once a year during the Term a written report regarding NewLink's product development, royalty and sublicense payment (i.e., receipt of Consideration) information with respect to Licensed Products and milestone status. The report shall be certified by an officer of NewLink as true, correct and complete. This report is in addition to the reports required under Section 9 hereof.
13. Exclusive Option to Future IDO Discoveries.
 - a. LIMR hereby grants NewLink the exclusive option to obtain an exclusive, worldwide, sublicensable license under LIMR's interests in and to any or all Future IDO Discoveries (including any patent rights or other intellectual property covering or appurtenant to such Future IDO Discoveries) for any and all purposes, including to develop, make, have made, use, sell, offer for sale, and import products. LIMR shall promptly disclose in writing to NewLink (or its designees) any Future IDO Discovery made or identified, including all relevant information relating to the Future IDO Discovery as reasonably needed for NewLink to evaluate whether to exercise the option. NewLink shall indicate its intention to exercise such option by notifying LIMR in writing within six (6) months after the disclosure of such Future IDO Discovery to NewLink hereunder (such period, the "Option Period" as to such Future IDO Discovery).

- b. If NewLink exercises such option for a particular Future IDO Discovery disclosed by LIMR pursuant to Section 13(a) above, the parties will negotiate exclusively and in good faith the specific terms and conditions on which an exclusive (or if elected by NewLink, non-exclusive) license will be granted. Such license shall be on commercially reasonable terms typical for similar license agreements; provided, however, that should NewLink elect to renew the CRADA for additional years of funding [***], LIMR [***] of any Future IDO Discovery. The [***] reduce the requirement of the payment of [***] as consideration for such license(s) (provided that, to the extent appropriate in a determination of [***], NewLink's funding under the CRADA shall be taken into account in determining what is such [***]). The annual fees, royalties, and sublicensing fees associated with such license shall be based upon and be equivalent to the [***] of the underlying Future IDO Discovery, and any other reasonable terms and conditions, in each case, shall be negotiated by the parties in good faith. If the parties are unable, despite each party using good faith efforts, to agree upon the terms of such license within six (6) months following the date the option is exercised by NewLink with respect to a particular Future IDO Discovery, then the option as to Future IDO Discovery shall expire; provided, however, that in no event may LIMR enter into a license or other similar agreement with any third party with respect to such Future IDO Discovery on terms more favorable to such third party than those last offered to NewLink during the twenty-four (24) months immediately following such option expiration, unless LIMR has first offered to NewLink the right to obtain such license on such terms, and NewLink fails to accept such terms within thirty (30) days after receiving LIMR's offer.
14. Indemnity. NewLink shall defend and indemnify and hold LIMR, its parent corporations, affiliates, trustees, officers, agents and employees (the "Indemnitees") harmless from any judgments and other liabilities based upon claims or causes of action brought by a third party against any Indemnitee which arise out of alleged negligence in the development, manufacture or sale of Licensed Products by NewLink, its Affiliates or any Sublicensees, or from the use by the end users of Licensed Products, except to the extent that such judgments or liabilities arise in whole or in part from the gross negligence or willful misconduct of LIMR or its employees, provided that LIMR promptly notifies NewLink of any such claim coming to its attention and that it cooperates with NewLink in the defense of such claim. If any such claims or causes of action are made, NewLink counsel, the identity of whom LIMR does not have a reasonable objection, shall defend LIMR. If LIMR has a reasonable objection to the counsel selected by NewLink, LIMR and NewLink shall cooperate with each other reasonably and in good faith so that NewLink can engage legal counsel to whom LIMR does not have reasonable objection. LIMR reserves the right to be represented by its own counsel at its own expense.
15. Limitations of Liability. EXCEPT FOR THE INDEMNIFICATION OBLIGATIONS ABOVE, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR

PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH HEREIN, NEWLINK'S TOTAL LIABILITY UNDER THIS AGREEMENT SHALL BE LIMITED TO THE [*].

16. **Insurance.** At such time as NewLink, its Affiliates, or Sublicensees, initiates or otherwise enters into clinical trials of any Licensed Product or commercially distributes or sells Licensed Products (other than for the purpose of obtaining regulatory approvals), NewLink shall at its sole cost and expense, procure and maintain comprehensive general liability insurance in amounts not less than \$3,000,000 per incident and naming the Indemnitees (defined in Section 13(a) above) as additional insureds. LIMR may require such minimum requirements to be increased from time to time if the minimum amounts of such insurance carried by prudent companies in the general size of NewLink and in similar industries as NewLink is higher, so that NewLink will at all times carry commercially reasonable amounts of insurance. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for NewLink's indemnification under this Agreement. If NewLink elects to self-insure all or part of the limits described above (including deductibles or retentions, which are in excess of \$250,000 annual aggregate) such self-insurance program must be acceptable to LIMR and Main Line Health Vice President Insurance in their sole and absolute discretion. Such insurance will be considered primary as to any other valid and collectible insurance, but only as to acts of the named insured. The minimum amounts of insurance coverage required shall not be construed to create a limit of NewLink's liability with respect to its indemnification and other obligations under this Agreement. NewLink shall provide LIMR with written evidence of such insurance promptly upon written request of LIMR. NewLink shall use commercially reasonable efforts to provide LIMR with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance. If NewLink does not obtain replacement insurance providing comparable coverage within sixty (60) days following the date of such cancellation, non-renewal or material change, LIMR shall have the right to terminate this Agreement effective at the end of such sixty (60) day period without notice or any additional waiting periods. NewLink shall maintain such comprehensive general liability insurance beyond the expiration or termination of this Agreement during (i) the period that any Licensed Product is being clinically tested, commercially distributed or sold by NewLink (or an agent on its behalf) or by a sublicensee, Affiliate and (ii) a reasonable period after the period referred to in (i) above which in no event shall be less than five (5) years.
17. **Mutual Confidentiality.** NewLink and LIMR realize that certain confidential or proprietary information disclosed by one party (the "disclosing party") to the other party (the "receiving party") pursuant to this Agreement ("Confidential Information" of the

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disclosing party) shall be treated as confidential. For purposes of this Agreement, the term "Confidential Information" of a party means any of the following:

- a. all information concerning the business or affairs of either party or its affiliates, including without limitation, all information relating to the LIMR Technology or to NewLink technology, the Patent Rights, the Licensed Product, the Future IDO Discoveries, and/or any and all existing and potential research parameters, program requirements, strategies, products, technology, know-how, information, data, processes, systems, inventions, developments, formulations, applications, and methods of rendition of services relating to any of the foregoing;
- b. all information received from third parties and held in confidence by either party or its affiliates, or
- c. all information pertaining to the proposed business relationship(s) and/or transactions(s) between the parties, including without limitation, the terms thereof (except that LIMR may disclose the terms of this Agreement to Bryn Mawr College or Professor Bill Malachowski or to their legal counsel to the extent LIMR deems such disclosure necessary or appropriate in connection with negotiating with them agreements related to this Agreement or to the Sponsored Research.

The Confidential Information of the disclosing party shall not be disclosed by the receiving party to any third party and shall not be used by the receiving party for purposes other than those contemplated by this Agreement without the prior written consent of the disclosing party. Any Confidential Information exchanged by the parties under this Agreement shall remain subject to such confidentiality and non-use obligations for a period of five (5) years from the termination or expiration of the Agreement. The confidentiality and non-use obligations under this Article 17 shall not apply to any information that:

- a. Is or which later becomes publicly known through no fault of the receiving party, or
- b. Is already in the receiving party's possession prior to the disclosure by the disclosing party to the receiving party as indicated in the receiving party's competent written records, or
- c. Is subsequently disclosed to the receiving party, by a third party not under any obligation of confidentiality to the disclosing party, or
- d. Is independently developed by the receiving party without use of the Confidential Information of disclosing party or any other information from the disclosing party that is protected by any other confidentiality obligations.

In addition, the receiving party may disclose specific Confidential Information of the other party to the extent such disclosure is required to be disclosed by court order or governmental law, rule or regulation, provided that the receiving party first gives the disclosing party prompt written

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notice of any such requirement and cooperates with the disclosing party in attempting to limit or seek confidential treatment with respect to such disclosure of such Confidential Information.

The provisions of this Section 17 are subject to the publication rights of LIMR as described in Section 2(c) hereof.

18. **Disclaimer.** Except as expressly set forth in Section 5 hereof, nothing contained in this Agreement shall be construed as:
- a. a warranty or representation by LIMR as to the validity or scope of any Patent Rights;

- b. a warranty or representation that any Licensed Products manufactured, used or sold will be free from infringement of patents, copyrights, or third parties, except that LIMR represents that it has no knowledge of any existing issued patents or copyrights which might be infringed;

LIMR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF LICENSED PRODUCTS.

19. Third party Infringement.

- a. Each party shall promptly notify the other party in writing of any alleged or actual infringement of the Patent Rights of which it becomes aware and which may adversely impact the rights of either party hereunder.
- b. NewLink shall have the first right but not the obligation, at its expense, to bring an appropriate action against any person or entity directly or contributorily infringing the Patent Rights. LIMR shall cooperate reasonably with NewLink in such action, including by consenting to be named as a party to such action and furnishing a power of attorney upon request. Except as otherwise set forth in this Agreement, NewLink shall have sole control of the action brought by it; provided, however, that LIMR shall have the right to participate in such action against a third party infringer through counsel of its own choice and at its own expense.
- c. In the event NewLink institutes legal action against an infringer hereunder, LIMR shall fully cooperate with and supply all assistance reasonably requested by NewLink,

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including, without limitation, by using commercially reasonable efforts to have its employees testify and grant interviews when requested and to make available relevant records, papers, information, samples, specimens, and similar items upon request of NewLink LIMR shall render such cooperation at its own cost and expense ("LIMR's Costs"). NewLink shall keep LIMR reasonably informed of the progress of such action, and LIMR shall be entitled to be represented by counsel in connection with such action at its own expense.

- d. NewLink shall bear the costs of all reasonable and customary expenses for such action (including attorneys' fees and expert fees). Any amounts paid to NewLink by third parties as a result of such action (in satisfaction of a judgment or pursuant to a settlement recovery) shall first be applied to the payment of NewLink's out-of-pocket expenses (including attorneys' fees and expert fees), second to LIMR's Costs, third to LIMR's other out-of-pocket expenses in connection with the matter (including attorneys' fees and experts fees), and then the balance of any such amounts [*]. NewLink shall have the right to settle any claims, but provided that if such settlement materially negatively affects LIMR's interests such settlement shall be only upon terms and conditions that are reasonably acceptable to LIMR, such reasonable acceptance to be confirmed by LIMR in writing prior to NewLink's agreement to such settlement.
- e. If NewLink elects to abandon such an action other than pursuant to a settlement with the alleged infringer that is reasonably acceptable to LIMR, NewLink shall give timely notice to LIMR who, if it so desires, may continue the action; provided, however, that the sharing of expenses and any recovery in such suit shall be [*]. Any such notice shall be given by NewLink to LIMR in sufficient advance of the expiration of the applicable statute of limitations to enable LIMR an adequate time period to protect its rights, but in no case less than twelve (12) months prior to the expiration of such statute of limitations.

20. Technical Assistance. Throughout the term of the Agreement, LIMR agrees to permit NewLink and its designees to consult with its employees and agents regarding any Improvements or Future IDO Inventions made after the Effective Date relating to the Licensed Products, at such times and places as may be mutually agreed upon; provided that NewLink agrees to limit such consultation to five (5) employee-investigator hours per week and make suitable arrangements directly with LIMR employees and agents and to compensate for such consultation at LIMR's then-current rates as communicated to NewLink.

21. Name. NewLink shall not use and shall not permit to be used by any other person or entity the name or logo of LIMR nor any adaptation thereof, or the name of LIMR's employees, in any advertising, promotional or sales literature, or for any other purpose without prior written permission of LIMR, except as required by governmental authority or applicable law, and provided that the foregoing shall not prevent NewLink from disclosing to third parties the existence of this Agreement including the CRADA obligations.

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22. Governing Law. This Agreement shall be construed, governed, interpreted and enforced according to the laws of the Commonwealth of Pennsylvania without reference to principles of conflicts of laws.

23. Notices. Any notice or communication required or permitted to be given by either party hereunder, shall be deemed sufficiently given, if mailed by certified mail, return receipt requested, and addressed to the party to whom notice is given as follows:

If to LIMR:

J. Todd Abrams, Ph.D. Director of Philanthropy and Business Development
Lankenau Institute for Medical Research
100 E. Lancaster Avenue
Wynnewood, PA 19096

With a Copy to:

Office of the General Counsel
Main Line Health
Bryn Mawr Hospital Legal Department, 1st floor, D Wing

If to NewLink:

Dr. Nick Vahanian
Chief Medical and Operations Officer
2901 South Loop Drive
Suite 3900
Ames, Iowa 50010

24. Assignment. This Agreement shall inure to the benefit of and be binding on the parties' permitted assigns and successors in interest. Except as provided in this Section 24, neither party shall assign or transfer this Agreement without the express prior written consent of the other, such consent not to be unreasonably withheld. Notwithstanding the foregoing, an assignment of this Agreement by NewLink in connection with the transfer of all or substantially all of its assets or equity, or by reason of acquisition, merger, consolidation or operation of law shall not require LIMR's consent.
25. Entire Agreement. This Agreement, together with any exhibits attached hereto, represents the entire agreement between the parties with respect to the subject matter hereof, and may only be subsequently altered or modified by an instrument in writing. This Agreement cancels and supersedes any and all prior oral or written agreements between the parties that relate to the subject matter of this Agreement.

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26. Mediation and Arbitration.

- a. Except as otherwise expressly provided herein, both parties agree that they shall use good faith, reasonable efforts to attempt to resolve any dispute arising from this Agreement, or the breach thereof, through mediation before proceeding to arbitration proceedings as set forth below. Both parties agree that at least one employee (with respect to NewLink an authorized executive officer of NewLink) who is authorized and capable of negotiating an agreement on behalf of such party, shall, within three (3) weeks of receipt of written notification of a dispute, meet with at least one employee (an executive officer in the case of NewLink) of the other party who is also authorized and capable of negotiating an agreement on behalf of such party. If no agreement can be reached, both parties agree to meet again within a four (4) week period after the initial meeting to negotiate in good faith to resolve the dispute.
- b. If no agreement can be reached after this second meeting or if otherwise expressly provided herein, both parties agree to submit the dispute to binding arbitration under the Commercial Arbitration Rules of the American Arbitration Association ("AAA") before a panel of three (3) independent arbitrators each having at least ten (10) years experience in the biomedical licensing area. The identity of the arbitrators shall be mutually agreed upon by the parties, provided, however, that if they are unable to agree on such arbitrators within ten (10) business days after the earlier of (i) the AAA providing them with a list of potential qualified arbitrators or (ii) the delivery of a list of at least ten potential qualified arbitrators by one party to the other party, then AAA shall select the arbitrators from the relevant list. Discovery shall be permitted as set forth in the Federal Rules of Civil Procedure with respect to the performance by the parties of their obligations under this Agreement and such other matters as the arbitrators may determine Judgment upon an award rendered by the arbitrator may be entered in any court having jurisdiction thereof.
27. Waiver. A failure by one of the parties to this Agreement to assert its rights for or upon any breach or default of this Agreement shall not be deemed a waiver of such rights nor shall any such waiver be implied from acceptance of any payment. No such failure or waiver in writing by any one of the parties hereto with respect to any rights, shall extend to or affect any subsequent breach or impair any right consequent thereon.
28. Severability. The parties agree that it is the intention of neither party to violate any public policy, statutory or common laws, and governmental or supranational regulations; that if any sentence, paragraph, clause or combination of the same is in violation of any applicable law or regulation, or is unenforceable or void for any reason whatsoever, such sentence, paragraph, clause or combinations of the same shall be inoperative and the remainder of the Agreement shall remain binding upon the parties.
29. Force Majeure. Neither party shall lose any rights under this Agreement or be liable to the other party for damages or losses on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, act of God, earthquake, flood, explosions, sabotage, strikes or labor disputes, lockout, riots, invasions, acts of war, embargo, governmental acts or orders or restrictions, disruptions of supplies of adequate raw materials, terrorist attacks, or any other reason where failure to perform is

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beyond the reasonable control and not caused by the negligence or intentional conduct or misconduct of the nonperforming party, and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

30. Marking. NewLink agrees to mark the Licensed Products covered by the Patent Rights in the United States with all applicable U.S. Patent numbers. NewLink agrees to mark the Licensed Products covered by the Patent Rights in other countries with all applicable patent numbers issued by such other countries to the extent required by applicable laws in order to preserve patent rights.
31. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not constitute a part hereof.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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IN WITNESS WHEREOF, the parties have signed this Agreement on and as of the Effective Date.

LANKENAU INSTITUTE FOR MEDICAL RESEARCH

NEWLINK GENETICS CORPORATION

By: /s/Edward Jones., Jr.

Name: /s/ Nicholas N. Vahanian

Title: Chairman

Title: Chief Operations Officer

Date: 12/11/07

Date: 12/21/07

Exhibit A

Patent Rights

“Indoleamine 2,3 Dioxygenase-2”, [*]

Exhibit B

CRADA

NewLink Genetics Corporation will provide financial support to fund research at Lankenau Institute for Medical Research (LIMR) for one year (“Initial Year”) with an option for future one-year renewals based on need and progress. The Initial Year shall begin on October 1, 2007 and end on May 31, 2008. All subsequent years for purposes of these financial support obligations shall begin on June 1 of the applicable year and end on May 31 of the following calendar year. The support funds will be committed towards personnel and consumable expenses that are directly related to this research project.

Project Scope: The first part of the project will involve study/ analysis of IDO-2 enzyme and biological pathways related to this enzyme. The second part of this project involves synthesis and evaluation of inhibitory compounds/molecules for IDO through an established collaboration of LIMR with William Malachowski and his colleagues in the Department of Chemistry at Bryn Mawr College. Further aim of this project is to evaluate ‘hits’ that may emerge from screening of the NCI compound collection being conducted at NCI Frederick under the auspices of a RAND award, from compound collections planned for screening elsewhere this fall, or from other investigators through MTA’s as appropriate, during the term of this proposal.

Research Aims: Are as summarized below

Scientific Milestones proven by:

[*]

Year 1 Budget: Support for [*] personnel, [*] is included in this project. Supply costs will be estimated at [*] annually.

Scientific Personnel Costs [*]

[*]

Supply costs [*]

Total Potential Project Reward [*]

The amounts set forth above for Year 1 shall be paid within sixty (60) days after the execution and delivery of this Agreement.

Any amounts due with respect to CRADA funding for Year 2 and years subsequent to that shall be paid quarterly in advance.

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT (the “Agreement”) is made and entered into by and between **LANKENAU INSTITUTE FOR MEDICAL RESEARCH** (“LIMR”) and **NEWLINK GENETICS CORPORATION** (“NewLink”) for the licensing of certain intellectual property rights to NewLink, effective on this 23 day of April, 2009 (the “Effective Date”).

WHEREAS, LIMR owns certain technology and intellectual property rights developed by Dr. George Prendergast at LIMR relating to [*] inhibitors of Indoleamine 2, 3 Dioxygenase (“IDO”), and

WHEREAS, LIMR filed U.S. provisional patent application no. [*] covering such IDO inhibitors and related inventions as of [*]; and

WHEREAS, NewLink and LIMR have conducted further collaborative research on such IDO inhibitors and intend to [*]; and

WHEREAS, NewLink would like to obtain the exclusive, worldwide license rights from LIMR, , [*] and LIMR desires to grant such rights to NewLink, under LIMR’s interest in such technology and intellectual property, and in any improvements or derivatives thereof developed by LIMR or jointly by LIMR and NewLink, for the purpose of developing the technology into marketable therapeutic or diagnostic products.

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions.

- a. Affiliate(s). “Affiliate” means, with respect to NewLink, any individual, company or other business entity, in whatever country organized, that directly or indirectly controls, is controlled by, or is under common control with NewLink. For purposes of this Agreement, the term “control” (with correlative meanings for the terms “controlled by” and “under common with”) shall mean that the applicable individual, company or entity owns, directly or indirectly, more than thirty-three percent (33%) of the voting stock or equity of NewLink, or otherwise has the ability to direct and manage the business affairs of NewLink (whether through contract or otherwise).
- b. Consideration. Subject to the other provisions of this Agreement, “Consideration” shall mean any and all revenues or payments in-kind received by NewLink or its Affiliates from a Sublicensee (as defined in Article 3) as consideration for the grant by NewLink of a sublicense under the rights granted to NewLink by LIMR pursuant to Article 2(a) hereof, *but excluding* sums or amounts received: (i) for the purchase of an equity interest in NewLink (which for purposes of this Agreement shall be valued at fair market value at the time of receipt by NewLink); (ii) as fair market value payments or reimbursements for

research and development work performed by or on behalf of NewLink (which reimbursement may be in the form of reasonable and typical FTE rates); (iii) for purchase or supply of Licensed Product; and (iv) as a loan, or as reimbursement of patent prosecution costs, or as payment of a share of amounts recovered in enforcing a patent or other intellectual property rights. Furthermore, if NewLink or an Affiliate receives from a Sublicensee payments or revenue or other consideration, and such payments or revenue or other consideration is in consideration both for the grant of a sublicense under the Licenses granted to NewLink hereunder as well as for the grant of a license or sublicense to other technology controlled by NewLink but not acquired from LIMR under this Agreement, then the “Consideration,” for purposes of this Agreement, shall be deemed to be such payments or revenue or other consideration multiplied by a percentage that fairly represents, as reasonably determined and mutually agreed upon by the parties, the percentage contribution of the LIMR Technology and the Patent Rights to the total value of the rights licenses or sublicensed by NewLink or its Affiliate to such Sublicensee. Either party may request an independent third party fair market value determination of such reasonable percentage and in such a case the parties shall equally share the cost of obtaining such determination.

- c. [*] Claim. “[*] Claim” shall mean a claim in [*] as filed with the United States Patent and Trademark Office on [*].
- d. Improvements. “Improvement” shall mean any improvement, modification, derivative, and/or enhancement of the LIMR Technology or the Patent Rights developed, acquired or otherwise controlled by LIMR at any time after the Effective Date.
- e. Licensed Product. “Licensed Product” shall mean any article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered or claimed by a Valid Claim within the Patent Rights. For clarity, a “Licensed Product” shall not include other product or material that (a) is used in combination with Licensed Product, and (b) does not constitute an article, composition, apparatus, substance, chemical material, method, process or service whose manufacture, use, or sale is covered or claimed by a Valid Claim within the Patent Rights.
- f. LIMR Technology. “LIMR Technology” shall mean the technology and/or know-how owned or controlled by LIMR that specifically relates to the subject matter of the Patent Rights or is otherwise necessary or useful for the practice of the Patent Rights.
- g. Net Sales. “Net Sales” shall mean the gross consideration actually received or collected by NewLink and/or any Affiliate from the transfer, sale or other commercial distribution of any Licensed Product to a third party customer, less:
 - (1) revenue credited or rebated on returns and allowances, and bad debts;

- (2) discounts, in amounts customary in the trade and to the extent actually granted, for quantity purchases, for prompt payments and for wholesalers and distributors;
- (3) transportation, shipping, insurance and delivery charges or allowances;
- (4) customs, duties;
- (5) sales, use, excise, value-added and other taxes (other than the taxes on the income of the selling party or NewLink) or other governmental charges measured by sales;
- (6) governmental and managed care rebates or chargebacks to the extent actually incurred or allowed with respect to Licensed Product sold during the relevant time period to group purchasing organizations, hospitals, or other buying groups; and
- (7) retroactive price reductions that are actually allowed or granted.

Sales between or among NewLink and its Affiliates will be excluded from the computation of Net Sales, but the subsequent final sales of such Licensed Product to third parties by NewLink or its Affiliates will be included in the computation of Net Sales. In addition, transfers or dispositions of Licensed Products in commercially reasonable quantities for nominal consideration the use of which is restricted to either charitable, sampling or promotional purposes or for preclinical, clinical, manufacturing (without sale), scale-up, regulatory or governmental purposes shall not be considered a “sale” or “other commercial disposition” and shall not be included for purposes of calculating Net Sales under this Agreement.

If NewLink (or its Affiliate) sells a Licensed Product in combination with another active component or ingredient, which is not itself a Licensed Product (a “**Combination Product**”), for one selling price, then the “Net Sales of such Combination Product, for the purpose of determining the royalty owed, shall be the Net Sales resulting from such sale, as set forth above, multiplied by a factor that reflects the fair market value, in such Combination Product, of the Licensed Product therein, compared to the total market value of the Combination Product including its other active components or ingredients, such factor to be determined reasonably and in good faith by NewLink and LIMR.

- h. Patent Rights. “Patent Rights” shall mean (a) the patent applications identified on **Exhibit A** of this Agreement; (b) all patents and patent applications of LIMR covering or claiming any improvement, modification, derivative, and or enhancement of the LIMR Technology or of any of the patent applications or rights or foreign counterparts described in subclauses (a), (c), (d) or (e) of this definition; (c) all continuing patent applications (including divisional, substitution, continuations and continuations-in-part) based on any of the foregoing applications; (d) all rights and interest held, acquired or otherwise

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controlled by LIMR in and to any patents issuing on any of the foregoing applications (including any reexaminations, reissues, renewals, inventors certifications, and extensions thereof); and (e) all foreign counterparts worldwide of any such patent applications and patents.

- i. Successful Completion. “Successful Completion” of a particular clinical trial means that such trial has been completed on sufficient numbers of subjects to meet the regulatory requirements for proceeding to the next phase of clinical trials, the final report analyzing the data from such subjects in such trial has been completed, and the results of such data support initiating the next phase of clinical trials on the drug studied in such trial.
- j. Valid Claim. A “Valid Claim” means (i) a claim of an issued patent in the Patent Rights that (a) has not expired or been abandoned; (b) has not been disclaimed; (c) has not been canceled or superseded, or if cancelled or superseded, has not been reasserted; (d) has not been revoked, held invalid or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in any country in which such patent may have issued (from which no further appeal has or may be taken); and/or (e) abandoned in accordance with or as permitted by the terms of this Agreement or by mutual written consent; or (ii) a claim included in a pending patent application under the Patent Rights, which claim is being actively prosecuted in accordance with this Agreement, has been subject to prosecution for protection for no more than five (5) years and has not been canceled, withdrawn from consideration, finally determined to be unallowable by the applicable governmental authority in such country (and from which no appeal is or can be taken), and/or abandoned in accordance with or as permitted by the terms of this Agreement by mutual written consent.

2. Exclusive License.

- a. License Grant. Subject to the retained rights of LIMR and the government set forth in subsection 2(b) below, LIMR hereby grants to NewLink the exclusive, world-wide, royalty-bearing license, with the right to grant sublicenses, under LIMR’s interest in the LIMR Technology and the Patent Rights, to use and practice the LIMR Technology and the Patent Rights in all fields and to make, have made, use, sell, offer for sale, and/or import Licensed Product in all fields (the “License”).

With respect to any Licensed Products covered by Patent Rights that have been discovered using Federal funding, NewLink and its sublicensees shall comply (to the extent applicable) with the requirements of the Bayh-Dole Act which require that “any products embodying the invention or produced through the use of the subject invention will be manufactured substantially in the United States,” (United States Code, Title 35, Part II, Chapter 18, Section 204), *except* if there is an exception to such requirement, and provided that LIMR shall use

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reasonable efforts, if reasonably requested by NewLink, to request and obtain an exception to such requirement.

b. Retained Rights. Notwithstanding the foregoing, LIMR expressly reserves a non-exclusive, non-transferable, royalty-free right to use the Patent Rights and the LIMR Technology, including use by its staff and researchers and affiliates for its internal non-commercial, educational and research purposes only, including without limitation the right of LIMR to publish its research, subject to the reasonable prior review by NewLink to the extent such publication would disclose confidential LIMR Technology licensed hereunder. LIMR shall temporarily refrain from publication for a reasonable period of time to accommodate any patent filings or other regulatory actions intended to protect any confidential LIMR Technology licensed hereunder, such period of time not to exceed the later of one year from (x) the date on which such confidential LIMR Technology was created, developed, discovered, conceived and/or reduced to practice or (y) the date on which such confidential LIMR Technology was licensed to NewLink hereunder. Further, the licenses granted to NewLink in Section 2(a) are subject to certain rights reserved by the United States government pursuant to applicable law or regulation in any inventions in the Patent Rights made with federal funding pursuant to RO1CA109542.

3. Sublicenses. NewLink and its Affiliates shall have the right to grant sublicenses to third parties (each, a "Sublicensee") under the LIMR Technology and Patent Rights (with the right to further sublicense) for all purposes including to research, develop, make, have made, use, sell, offer for sale, and import the Licensed Products. Such sublicenses shall be in writing and expressly subject to the terms of this Agreement, and shall not grant rights under the Patent Rights that exceed the scope of the rights expressly granted under this Agreement. Any such sublicense agreement that is materially inconsistent with this Agreement shall constitute a material breach of this Agreement by Company. NewLink agrees to require that its Sublicensees must not violate the terms of this Agreement, and that such Sublicensees shall do the same with respect to any further subsublicenses, and NewLink shall use commercially reasonable efforts to enforce such obligations for the benefit of LIMR. At LIMR's request, NewLink will provide LIMR with a copy of each sublicense and subsublicense in order to allow LIMR to review such sublicenses and subsublicenses to assure consistency with this Agreement (which copy may be redacted to delete any confidential information that does not relate to the Patent Rights or LIMR Technology or the royalties, revenue or consideration thereunder or the sublicense of rights thereunder). If LIMR performs such a review on any sublicense or subsublicense agreement, those agreements reviewed by LIMR, not including any subsequent amendments or changes to the agreements, shall be deemed to conform to this Agreement unless LIMR has raised an objection to one or more of such sublicense or subsublicense agreements. If LIMR has requested copies of the Agreement, New Link shall automatically provide copies of any amendments in existence at the time of the request and subsequently at the time such amendments are entered into. Upon termination of this Agreement in compliance with the notice and other provisions of this Agreement, and subject to Section 4(e) below, any such sublicenses between NewLink and its

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sublicensees will remain in effect and be assigned directly to LIMR, which shall have the right to cancel any such sublicense if such sublicensee is not then in compliance with the terms of its sublicense and the applicable terms of this Agreement. Notwithstanding the foregoing, LIMR shall not be responsible for any obligation of NewLink under any such agreement which obligation accrued prior to the date of such assignment and if there is any such unperformed obligation which is ongoing or which affects the obligations of the subsublicensee or its ability to perform, LIMR may elect to cancel such sublicense agreement, without liability, upon written notice to such subsublicensee. Upon such a cancellation, the subsublicensee may sell all Licensed Products in its inventory and complete Licensed Products in the process of manufacture at the time of such termination and sell the same, provided it is not in default under its subsublicense agreement and further provided it pays to LIMR all payments required to be paid to the sublicensor thereunder and provides one or more accountings of all such sales to LIMR (1) within thirty (30) days of LIMR's request therefore and (ii) within thirty (30) days after the last such sale, such accountings to be certified as true, complete and correct by such sublicensee's chief financial officer.

4. Term and Termination. The term of this Agreement shall commence as of the Effective Date and shall stay in effect until the last to expire issued Valid Claim covering Licensed Products included in the Patent Rights, unless otherwise terminated earlier as provided below in this Article 4 (collectively, the "Term").

a. If LIMR believes in good faith that NewLink has materially breached its obligations under Section 9(a), then LIMR shall, in accordance with the terms of this paragraph 4, have the right and option to reduce NewLink's exclusive License to a nonexclusive license or revoke the License in its entirety (by terminating the Agreement), provided that prior to taking this action:

- (1) LIMR shall provide NewLink written notice of the perceived breach, describing in detail the basis for LIMR's belief that such perceived breach has occurred, describing the preferred method of cure and the proposed action to be taken by LIMR in the event of non-cure; and
- (2) NewLink shall have ninety (90) days to establish that it has met or will, within such ninety (90) day period, meet the applicable obligations; if the parties are still in dispute as to whether NewLink has met such obligations or cured such breach within ninety (90) days after receipt of notice from LIMR, the dispute will be submitted to binding arbitration in accordance with Section 23(b) of this Agreement, and if such arbitration determines that NewLink materially breached its obligations under Section 9(a) and did not cure such breach, then LIMR shall have the option to terminate this Agreement or to convert the License granted to NewLink in Section 2(a) to a non-exclusive license, in each case, upon prior written notice to NewLink.

b. LIMR may terminate this Agreement immediately by providing NewLink written notice of termination, if:

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- (1) NewLink ceases to function as a going concern;
 - (2) a bankruptcy petition or action is filed or taken by or against NewLink under any United States bankruptcy law;
 - (3) a receiver, assignee or other liquidating officer is appointed with control for all or substantially all of the assets of NewLink; or

(4) NewLink makes an assignment for the benefit of creditors of all or substantially all its assets;

provided, that, in the case of subclauses (b)(2), (3) or (4) above, such aforementioned circumstance is not remedied, dismissed or stayed within the earlier of sixty (60) days of (x) occurrence of (b)(2), (3) or (4) or (y) LIMR's notice of its intent to terminate this Agreement;

Notwithstanding anything in Sections 4(a) or (b) or 23 to the contrary, at any time that LIMR or NewLink believes that the other party has defaulted under this Agreement and that such default will irreparably harm such party, in addition to its rights under this Agreement and at law, such party shall have the right to seek all applicable equitable remedies.

- c. If NewLink fails to make any payment whatsoever due and payable to LIMR hereunder, LIMR shall have the right to terminate this Agreement effective on ninety (90) days written notice, unless NewLink shall make all such payments to LIMR within said ninety (90) day period, and provided that the payments demanded by LIMR are not disputed by NewLink. In the event of a dispute of such payments by NewLink, the parties shall use good faith efforts to resolve the dispute, which if not resolved by the end of four (4) months either party may submit the dispute to binding arbitration pursuant to Section 23(b). Any disputed payments submitted to arbitration hereunder be paid into escrow the arbitrator or other independent escrow agent acceptable to both parties in their reasonable discretion unless and until determined due by the arbitrator under Section 23(b), provided, however that if the arbitrator determines that amounts are payable by NewLink to LIMR, then such outstanding amounts will bear interest back to the date that they originally accrued at the default rate of Prime plus 4%. Prime shall be the prime rate published by the Wall Street Journal or if the Wall Street Journal publishes more than one prime rate, then the average of the prime rates published by the Wall Street Journal, and if the Wall Street Journal does not publish a prime rate, then the prime rate of the largest bank in Philadelphia, Pennsylvania.
- d. NewLink shall have the right to terminate this Agreement at any time on ninety (90) days prior written notice to LIMR, provided that NewLink shall remain obligated to complete payment of all amounts that have accrued and are owed to LIMR through the effective date of the termination. In the event NewLink terminates the Agreement, the license granted hereunder shall be deemed terminated, and all rights with respect to the subject matter thereof revert to LIMR

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and all further obligations of NewLink to LIMR (except for obligations accrued prior to such termination) shall automatically be terminated.

- e. Upon expiration or termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that has accrued prior to the effective date of such termination. NewLink and any Sublicensee thereof may, however, after the effective date of such termination, sell all then existing Licensed Products, and complete Licensed Products in the process of manufacture at the time of such termination and sell the same, provided that NewLink shall make the payments to LIMR as required by Articles 8 & 9 of this Agreement and shall submit the reports as required by Article 11 hereof.
- f. Sections 4(e), 4(f), 7(b) (but solely with respect to sales made pursuant to Section 4(e)), 11, 12, 13 (solely for the period specified therein), 14, 18, 19, 20, 21 and 23 shall survive termination or expiration of this Agreement.

5. Ownership. LIMR represents and warrants to NewLink that LIMR owns the rights to the LIMR Technology and the Patent Rights (except to the extent any such LIMR Technology and Patent Rights are co-owned by NewLink) and has the right to license its interest in the LIMR Technology and the Patent Rights to NewLink, subject to the rights retained by the United States government and LIMR as described in Section 2(b).

6. Patent Prosecution. Commencing on the Effective Date, NewLink shall have the right and responsibility, at its expense and in its reasonable discretion, for the preparation, filing, prosecution and maintenance of any patent applications and patents included in the Patent Rights, in consultation with LIMR. NewLink shall provide LIMR the opportunity to review and comment upon such patent applications prior to filing, and on all communications with patent offices in all applicable countries and jurisdictions, the selection of countries for filing of patent applications, responses to office actions, and other substantive patent documents prior to filing and the right to have such documents revised prior to filing to reflect such comments. Promptly after the Effective Date, LIMR will transfer to NewLink (or its selected counsel) all patent prosecution files for the Patent Rights, shall provide to NewLink such executed documents or instruments as needed for NewLink to undertake such prosecution efforts, and shall provide NewLink all reasonable assistance in such prosecution. NewLink shall reimburse LIMR for the reasonable out-of-pocket costs, based on detailed invoices of such costs, actually incurred in conducting such prosecution and maintenance of the Patent Rights prior to the Effective Date; provided that LIMR has provided NewLink with an invoice for such costs together with appropriate documentation outlining the costs incurred. LIMR shall provide NewLink with all information necessary or useful for NewLink's filing and prosecution of such Patent Rights and shall cooperate fully with NewLink so as to maximize NewLink's rights. NewLink shall not abandon or opt not to file any patent or patent application included in the Patent Rights without the prior notice to LIMR. NewLink may elect in writing to cease the continued prosecution or maintenance of particular Patent Right in a country, and on such notice NewLink shall no longer have any further rights or responsibility for such prosecution or maintenance, or obligation to pay any amounts therefore, or any further rights under such specific Patent Right in such

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country, and LIMR may in its discretion continue such prosecution. Any such notice shall be given by NewLink to LIMR in sufficient time to enable LIMR an adequate time period to protect its rights, but in no case less than three (3) months prior the filing deadline imposed or promulgated by any governing or regulatory authority for filing any such protective document.

7. Royalties; Sublicense Payments.

- a. NewLink shall pay the following royalties to LIMR during the Term on a country-by-country and Licensed Product-by-Licensed Product basis, subject to Section 7(b) below:

- (1) For Licensed Product covered or claimed by a [*] Claim: [*] of the Net Sales of such Licensed Product in countries where the Licensed Product is covered by a Valid Claim at the time of sale.
- (2) For Licensed Product not covered by a [*] Claim: [*] of the Net Sales of such Licensed Product in countries where the Licensed Product is covered by a Valid Claim at the time of sale.

- b. In the event: (i) one or more additional technologies (including any patents related thereto) must be licensed (e.g. formulation, cross linking) by NewLink, its Affiliates, and/or Sublicensees from any third party to develop, make, use, import, sell, offer for sale, or import a Licensed Product in any country, or (ii) royalties are payable on the sale of a Licensed Product (as defined hereunder) pursuant to the Exclusive License Agreement between LIMR and NewLink, dated December 21, 2007, or pursuant to the License Agreement between LIMR and NewLink, dated July 7, 2005, (the "Prior Agreements"), NewLink shall be entitled to fully offset against royalties otherwise due to LIMR hereunder an amount equal to the aggregate royalties owed to such third party and owed to LIMR under the Prior Agreements; provided, however, that in no event shall NewLink pay LIMR a royalty hereunder of less than [*] of Net Sales.
- c. If NewLink grants a sublicense, under the License rights granted under this Agreement to NewLink, to a Sublicensee pursuant to Article 3 hereof, NewLink shall pay LIMR [*] of any Consideration received by NewLink from such Sublicensee, for each such sublicense during the Term. For clarity, sales of Licensed Product by a Sublicensee shall not be included in Net Sales.
- d. No more than one royalty payment shall be due with respect to a sale of a particular Licensed Product. No multiple royalties shall be payable because any Licensed Product, or its manufacture, sale or use is covered by more than one Valid Claim in a given country.

8. Payment of Royalties. Royalties and sublicense payments shall be payable by NewLink quarterly in U.S. dollars within forty-five (45) days of the end of the calendar quarter. NewLink shall render quarterly reports to LIMR on or before the last day of April, July,

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October, and January, as applicable, showing the amount of Net Sales received by NewLink during the most recently concluded fiscal quarter and the appropriate royalties and sublicense payments due to LIMR certified by NewLink's chief financial officer (or comparable financial officer) as true, correct and complete. Each such report shall be accompanied by payment of the royalties and/or sublicense payments due for such fiscal quarter. After the first commercial sale of any Licensed Product pursuant to this Agreement, and upon LIMR's request and at its expense, NewLink shall provide LIMR with copies of NewLink's then-existing standard audited financial statements covering the royalties and sublicense payments due under this Agreement within thirty (30) days of LIMR's request. NewLink shall pay estimated royalties payments quarterly with an annual reconciliation and of all payments performed within thirty (30) days of receipt of audited numbers. For the purpose of determining royalties payable under this Agreement, any Consideration NewLink receives from Sublicensees in currencies other than U.S. dollars and any Net Sales denominated in currencies other than U.S. dollars shall be converted into U.S. dollars at the same conversion rate that NewLink actually receives on such conversion at the time of the transaction in question which gave rise the Consideration.

9. Diligence; Milestones and Associated Payments.

- a. Diligence. NewLink has represented to LIMR, to induce LIMR to issue this exclusive license, that it will commit itself to a diligent program of developing and exploiting [*] so that public utilization will result there from. As part of the consideration for the exclusive license granted to NewLink hereunder, NewLink has agreed to use commercially reasonable efforts to develop and exploit [*]. Notwithstanding the foregoing, NewLink will not be deemed in breach of this Section 9(a) as long as it is using commercially reasonable efforts to develop and exploit [*] as defined under one or both of the Prior Agreements.

It is understood and agreed by the parties that the actions by any Affiliate or Sublicensee may satisfy the above obligations.

- b. Milestone Payments to LIMR. Subject to Section 9(c) below, NewLink will pay to LIMR:

- (1) [*] for the [*] for a Licensed Product in [*];
- (2) [*] for the [*] on a Licensed Product;
- (3) [*] for the [*] on a Licensed Product;
- (4) [*] for the [*] on a Licensed Product;
- (5) [*] for the [*] for a Licensed Product in [*];
- (6) [*] for [*] for a Licensed Product [*] in [*].

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For clarity, each such milestone payment above shall be payable only once under this Agreement.

- c. In the event: (i) one or more additional technologies (including any patents related thereto) must be licensed (e.g. formulation, cross linking) by NewLink, its Affiliates, and/or Sublicensees from any third party to develop, make, use, import, sell, offer for sale, or import a Licensed Product in any country, or (ii) milestone payments are payable pursuant to the Prior Agreements in connection with [*], NewLink shall be entitled to fully offset against a milestone payment payable upon the occurrence of a milestone event under Section 9(b)(5) or 9(b)(6) above with respect to a Licensed Product, an amount equal to the aggregate amount of any milestone payments owed to such third party or owed to LIMR under the Prior Agreements upon the occurrence of such milestone event with respect to such Licensed Product; provided, however, that in no event shall the amount payable under Section 9(b)(5) or 9(b)(6), as applicable, be less than [*].

10. **Reports and Accounting.** NewLink shall provide to LIMR no less than once a year during the Term a written report regarding NewLink's product development, royalty and sublicense payment (i.e., receipt of Consideration) information with respect to Licensed Products and milestone status. The report shall be certified by an officer of NewLink as true, correct and complete. This report is in addition to the reports required under Section 8 hereof.
11. **Indemnity.** NewLink shall defend and indemnify and hold LIMR, its parent corporations, affiliates, trustees, officers, agents and employees (the "Indemnitees") harmless from any judgments and other liabilities based upon claims or causes of action brought by a third party against any Indemnitee which arise out of [*] by NewLink, its Affiliates or any Sublicensees, or from [*] by the end users of Licensed Products or from [*] by NewLink, its Affiliates or any Sublicensees of [*], except to the extent that [*], provided that LIMR promptly notifies NewLink of any such claim coming to its attention and that it cooperates with NewLink in the defense of such claim. If any such claims or causes of action are made, NewLink counsel, the identity of whom LIMR does not have a reasonable objection, shall defend LIMR. If LIMR has a reasonable objection to the counsel selected by NewLink, LIMR and NewLink shall cooperate with each other reasonably and in good faith so that NewLink can engage legal counsel to whom LIMR does not have reasonable objection. LIMR reserves the right to be represented by its own counsel at its own expense. NewLink shall not settle any claim that requires the payment of money or the cessation of research and development in each case by LIMR without the prior written consent of LIMR in its sole discretion.
12. **Limitations of Liability.** EXCEPT FOR THE INDEMNIFICATION OBLIGATIONS ABOVE, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING LOST REVENUES OR LOST PROFITS, WHETHER BASED ON A CLAIM OR ACTION OF CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT OR OTHERWISE ARISING OUT OF THIS AGREEMENT, AND REGARDLESS OF WHETHER SUCH PARTY

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HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH HEREIN, NEWLINK'S TOTAL LIABILITY UNDER THIS AGREEMENT SHALL BE LIMITED TO [*]

13. **Insurance.** At such time as NewLink, its Affiliates, or Sublicensees, initiates or otherwise enters into clinical trials of any Licensed Product or commercially distributes or sells Licensed Products (other than for the purpose of obtaining regulatory approvals), NewLink shall at its sole cost and expense, procure and maintain comprehensive general liability insurance in amounts not less than \$3,000,000 per incident and naming the Indemnitees (defined in Section 11 above) as additional insureds. LIMR may require such minimum requirements to be increased from time to time if the minimum amounts of such insurance carried by prudent companies in the general size of NewLink and in similar industries as NewLink is higher, so that NewLink will at all times carry commercially reasonable amounts of insurance. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for NewLink's indemnification under this Agreement. If NewLink elects to self-insure all or part of the limits described above (including deductibles or retentions, which are in excess of \$250,000 annual aggregate) such self-insurance program must be acceptable to LIMR and Main Line Health Vice President Insurance and Main Line Health, Inc's chief financial officer in each of their sole and absolute discretions. Such insurance will be considered primary as to any other valid and collectible insurance, but only as to acts of the named insured. The minimum amounts of insurance coverage required shall not be construed to create a limit of NewLink's liability with respect to its indemnification and other obligations under this Agreement. NewLink shall provide LIMR with written evidence of such insurance promptly upon written request of LIMR. NewLink shall use provide LIMR with written notice at least thirty (30) days prior to the cancellation, non-renewal or material change in such insurance. If NewLink does not obtain replacement insurance providing comparable coverage immediately, LIMR shall have the right to terminate this Agreement effective immediately without notice or any additional waiting periods. NewLink shall maintain such comprehensive general liability insurance beyond the expiration or termination of this Agreement during (i) the period that any Licensed Product is being clinically tested, commercially distributed or sold by NewLink (or an agent on its behalf) or by a Sublicensee, Affiliate and (ii) a reasonable period after the period referred to in (i) above which in no event shall be less than five (5) years.
14. **Mutual Confidentiality.** NewLink and LIMR realize that certain confidential or proprietary information disclosed by one party (the "disclosing party") to the other party (the "receiving party") pursuant to this Agreement ("Confidential Information" of the disclosing party) shall be treated as confidential. For purposes of this Agreement, the term "Confidential Information" of a party means any of the following:
- a. All information concerning the business or affairs of either party or its affiliates, including without limitation, all information relating to the LIMR Technology or to NewLink technology, the Patent Rights, the Licensed Product, and/or any and

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all existing and potential research parameters, program requirements, strategies, products, technology, know-how, information, data, processes, systems, inventions, developments, formulations, applications, and methods of rendition of services relating to any of the foregoing;

- b. All information received from third parties and held in confidence by either party or its affiliates, or
- c. All information pertaining to the proposed business relationship(s) and/or transactions(s) between the parties, including without limitation, the terms thereof.

The Confidential Information of the disclosing party shall not be disclosed by the receiving party to any third party and shall not be used by the receiving party for purposes other than those contemplated by this Agreement without the prior written consent of the disclosing party. Any Confidential Information exchanged by the parties under this Agreement shall remain subject to such confidentiality and non-use obligations for a period of five (5) years from the termination or expiration of the Agreement. The confidentiality and non-use obligations under this Article 14 shall not apply to any information that:

- a. Is or which later becomes publicly known through no fault of the receiving party, or

- b. Is already in the receiving party's possession prior to the disclosure by the disclosing party to the receiving party as indicated in the receiving party's competent written records, or
- c. Is subsequently disclosed to the receiving party, by a third party not under any obligation of confidentiality to the disclosing party, or
- d. Is independently developed by the receiving party without use of the Confidential Information of disclosing party or any other information from the disclosing party that is protected by any other confidentiality obligations.

In addition, the receiving party may disclose specific Confidential Information of the other party to the extent such disclosure is required to be disclosed by court order or governmental law, rule or regulation, provided that the receiving party first gives the disclosing party prompt written notice of any such requirement and cooperates with the disclosing party in attempting to limit or seek confidential treatment with respect to such disclosure of such Confidential Information.

The provisions of this Section 14 are subject to the publication rights of LIMR as described in Section 2(b) hereof.

15. Disclaimer. Except as expressly set forth in Section 5 hereof, nothing contained in this Agreement shall be construed as:

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- a. a warranty or representation by LIMR as to the validity or scope of any Patent Rights; or
- b. a warranty or representation that any Licensed Products manufactured, used or sold will be free from infringement of patents, copyrights, or third parties; except that LIMR represents that it has no knowledge of any existing issued patents or copyrights which might be infringed.

LIMR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF LICENSED PRODUCTS.

16. Third Party Infringement.

- a. Each party shall promptly notify the other party in writing of any alleged or actual infringement of the Patent Rights of which it becomes aware and which may adversely impact the rights of either party hereunder.
- b. NewLink shall have the first right but not the obligation, at its expense, to bring an appropriate action against any person or entity directly or contributorily infringing the Patent Rights. LIMR shall cooperate reasonably with NewLink in such action, including by consenting to be named as a party to such action and furnishing a power of attorney upon request. Except as otherwise set forth in this Agreement, NewLink shall have sole control of the action brought by it; provided, however, that LIMR shall have the right to participate in such action against a third party infringer through counsel of its own choice and at its own expense.
- c. In the event NewLink institutes legal action against an infringer hereunder, LIMR shall fully cooperate with and supply all assistance reasonably requested by NewLink, including, without limitation, by using commercially reasonable efforts to have its employees testify and grant interviews when requested and to make available relevant records, papers, information, samples, specimens, and similar items upon request of NewLink. LIMR shall render such cooperation at its own cost and expense ("LIMR's Costs"). NewLink shall keep LIMR reasonably informed of the progress of such action, and LIMR shall be entitled to be represented by counsel in connection with such action at its own expense.
- d. NewLink shall bear the costs of all reasonable and customary expenses for such action (including attorneys' fees and expert fees). Any amounts paid to NewLink by third parties as a result of such action (in satisfaction of a judgment or pursuant to a settlement recovery) shall first be applied to the payment of NewLink's out-of-pocket expenses (including attorneys' fees and expert fees), second to LIMR's Costs, third to LIMR's other out-of-pocket expenses in connection with the matter (including attorneys' fees and experts fees), and then the balance of any such amounts shall be included in NewLink's calculation of Net Sales, applied to the quarter in which such recovery is obtained. NewLink shall have the right to settle any claims, but provided that if such settlement materially negatively affects

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LIMR's interests such settlement shall be only upon terms and conditions that are reasonably acceptable to LIMR, such reasonable acceptance to be confirmed by LIMR in writing prior to NewLink's agreement to such settlement.

- e. If NewLink elects to abandon such an action other than pursuant to a settlement with the alleged infringer that is reasonably acceptable to LIMR, NewLink shall give timely notice to LIMR who, if it so desires, may continue the action; provided, however, that the sharing of expenses and any recovery in such suit shall be as agreed upon between the parties. Any such notice shall be given by NewLink to LIMR in sufficient advance of the expiration of the applicable statute of limitations to enable LIMR an adequate time period to protect its rights, but in no case less than twelve (12) months prior to the expiration of such statute of limitations.

17. Technical Assistance. Throughout the term of the Agreement, LIMR agrees to permit NewLink and its designees to consult with its employees and agents regarding the LIMR Technology or any Improvements made after the Effective Date relating to the Licensed Products, at such times and places as may be mutually agreed upon; provided that NewLink agrees to limit such consultation to five (5) employee-investigator hours per week and make suitable arrangements directly with LIMR employees and agents and to compensate for such consultation at LIMR's then-current rates as communicated to NewLink.

18. Name. NewLink shall not use and shall not permit to be used by any other person or entity the name or logo of LIMR nor any adaptation thereof, or the name of LIMR's employees, in any advertising, promotional or sales literature, or for any other purpose without prior written permission of

LIMR, except as required by governmental authority or applicable law, and provided that the foregoing shall not prevent NewLink from disclosing to third parties the existence of this Agreement.

19. Governing Law. This Agreement shall be construed, governed, interpreted and enforced according to the laws of the Commonwealth of Pennsylvania without reference to principles of conflicts of laws.
20. Notices. Any notice or communication required or permitted to be given by either party hereunder, shall be deemed sufficiently given, (i) when mailed by certified mail, return receipt requested, and addressed as below to the party to whom notice is given or (ii) when transmitted by facsimile, email or other electronic means, provided that the sender receives confirmation of transmission, and sends a confirmation copy as provided in clause (1), addressed as below:

If to LIMR:

J. Todd Abrams, Ph.D.
Director of Philanthropy and Business Development
Lankenau Institute for Medical Research

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100 E. Lancaster Avenue
Wynnewood, PA 19096

With a Copy to:

Office of the General Counsel
Main Line Health
Bryn Mawr Hospital Legal Department, 1st floor, D Wing
130 So. Bryn Mawr Avenue
Bryn Mawr, PA 19010
Attention: Senior Vice President and General Counsel

If to NewLink:

Dr. Nick Vahanian
Chief Medical and Operations Officer
2901 South Loop Drive
Suite 3900
Ames, Iowa 50010

21. Assignment. This Agreement shall inure to the benefit of and be binding on the parties' permitted assigns and successors in interest. Except as provided in this Section 21, neither party shall assign or transfer this Agreement without the express prior written consent of the other, such consent not to be unreasonably withheld. Notwithstanding the foregoing, an assignment of this Agreement by NewLink to an Affiliate or in connection with the transfer of all or substantially all of the business to which this Agreement relates, whether by acquisition, merger, consolidation, operation of law or other transaction, shall not require LIMR's consent.
22. Entire Agreement. This Agreement, together with any exhibits attached hereto, represents the entire agreement between the parties with respect to the subject matter hereof, and may only be subsequently altered or modified by an instrument in writing. This Agreement cancels and supersedes any and all prior oral or written agreements between the parties that relate to the subject matter of this Agreement.
23. Mediation and Arbitration.
- a. Except as otherwise expressly provided herein, both parties agree that they shall use good faith, reasonable efforts to attempt to resolve any dispute arising from this Agreement, or the breach thereof, through mediation before proceeding to arbitration proceedings as set forth below. Both parties agree that at least one employee (with respect to NewLink, an authorized executive officer of NewLink) who is authorized and capable of negotiating an agreement on behalf of such party, shall, within three (3) weeks of receipt of written notification of a dispute, meet with at least one employee (an executive officer in the case of NewLink) of the other party who is also authorized and capable of negotiating an agreement on behalf of such party. If no agreement can be reached, both parties agree to meet

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again within a four (4) week period after the initial meeting to negotiate in good faith to resolve the dispute.

- b. If no agreement can be reached after this second meeting or if otherwise expressly provided herein, both parties agree to submit the dispute to binding arbitration under the Commercial Arbitration Rules of the American Arbitration Association ("AAA") before a panel of three (3) independent arbitrators each having at least ten (10) years experience in the biomedical licensing area. The identity of the arbitrators shall be mutually agreed upon by the parties, provided, however, that if they are unable to agree on such arbitrators within ten (10) business days after the earlier of (i) the AAA providing them with a list of potential qualified arbitrators or (ii) the delivery of a list of at least ten potential qualified arbitrators by one party to the other party, then AAA shall select the arbitrators from the relevant list. Discovery shall be permitted as set forth in the Federal Rules of Civil Procedure with respect to the performance by the parties of their obligations under this Agreement and such other matters as the arbitrators may determine. Judgment upon an award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

24. Waiver. A failure by one of the parties to this Agreement to assert its rights for or upon any breach or default of this Agreement shall not be deemed a waiver of such rights nor shall any such waiver be implied from acceptance of any payment. No such failure or waiver in writing by any one of the parties hereto with respect to any rights, shall extend to or affect any subsequent breach or impair any right consequent thereon.
25. Severability. The parties agree that it is the intention of neither party to violate any public policy, statutory or common laws, and governmental or supranational regulations; that if any sentence, paragraph, clause or combination of the same is in violation of any applicable law or regulation, or is unenforceable or void for any reason whatsoever, such sentence, paragraph, clause or combinations of the same shall be inoperative and the remainder of the Agreement shall remain binding upon the parties.
26. Force Majeure. Neither party shall lose any rights under this Agreement or be liable to the other party for damages or losses on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, act of God, earthquake, flood, explosions, sabotage, strikes or labor disputes, lockout, riots, invasions, acts of war, embargo, governmental acts or orders or restrictions, disruptions of supplies of adequate raw materials, terrorist attacks, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence or intentional conduct or misconduct of the nonperforming party, and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.
27. Marking. NewLink agrees to mark the Licensed Products covered by the Patent Rights in the United States with all applicable U.S. Patent numbers. NewLink agrees to mark the Licensed Products covered by the Patent Rights in other countries with all applicable

patent numbers issued by such other countries to the extent required by applicable laws in order to preserve Patent Rights.

28. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not constitute a part hereof.

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IN WITNESS WHEREOF, the parties have signed this Agreement on and as of the Effective Date.

LANKENAU INSTITUTE FOR MEDICAL RESEARCH

NEWLINK GENETICS CORPORATION

By: /s/ George C. Prendergast, PhD
 George C. Prendergast, PhD
 Professor & President/CEO

By: /s/ Mario Mautino
 Title: VP of Drug Discovery & Intellectual Property

Date: 5/18/09

Date: 5/19/09

Exhibit A

Patent Rights

1. **[*]**
2. **[*]**

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

CONFIDENTIAL

LICENSE AGREEMENT

Between: THE UNIVERSITY OF BRITISH COLUMBIA

and

NEWLINK GENETICS CORPORATION

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Schedules

“A”	Description of “Patents” and “Technology”
“B”	Notice of Exercise of Option
“C”	Mandatory Sublicense Provisions
“D”	Payment Report
“E”	UBC License Agreement Annual Report
“F”	Address for Notices & Payment Instructions

BETWEEN:

THE UNIVERSITY OF BRITISH COLUMBIA, a corporation continued under the *University Act* of British Columbia with its administrative offices at 2075 Wesbrook Mall, Vancouver, British Columbia, V6T 1W5

(“**UBC**”)

AND:

NEWLINK GENETICS, a corporation incorporated under the laws of Iowa, with a registered office at 2901 S. Loop Dr., Suite 3900, Ames, IA 50010.

(the “**Licensee**”)

WHEREAS:

UBC has been engaged in research during the course of which it has invented, developed and/or acquired certain technology relating to Indoleamine 2,3-Dioxygenase Inhibitors, which research was undertaken by Drs. Raymond Andersen, Grant Mauk, and Michel Roberge (the “**Investigators**”) and co-workers in the UBC Departments of Biochemistry, Chemistry, and Earth and Ocean Sciences;

It is UBC’s objective to exploit its technology for the public benefit, and to generate further research in a manner consistent with its status as a non-profit, tax exempt educational institution; and

The Licensee and UBC have agreed to enter into this license under which UBC grants Licensee the exclusive license rights under such technology and related intellectual property on the terms and conditions set out in this agreement (the “**Agreement**”).

THE PARTIES AGREE AS FOLLOWS:

1.0 DEFINITIONS

1.1 In this Agreement:

- (a) “**Affiliated Company**” or “**Affiliated Companies**” means, with respect to Licensee, another corporation or other business entity that controls, is controlled by, or is in common control with Licensee; where the term “control” means (with correlative meanings for the terms “controlled by” and “under common control with”) that the applicable entity owns fifty percent (50%) or more of the voting shares of the subject entity, or otherwise has the ability to direct and manage the business affairs of such subject entity (whether through contract or otherwise);
 - (b) “**Annual Maintenance Fee**” is defined in Article 6.5;
 - (c) “**Annual Payment**” is defined in Article 6.1(d);
 - (d) “**Annual Report**” means a report in the form referred to in Article 12;
-
- (e) “**Assigned Licensee Improvements**” means any new compounds made or discovered by Licensee or its Sublicensee(s) that are claimed or covered by the Patents in existence prior to the initial manufacture or discovery of such new compounds;
 - (f) “**Commercially Reasonable Efforts**” means, with respect to the efforts to be expended by Licensee to accomplish a particular objective in the research, development or commercialization of a Product or Licensee Owned Improvement Product, such efforts as are substantially equivalent to those efforts and resources commonly used by Licensee for a comparable product, acting reasonably promptly and taking into account commercially relevant factors such as (as applicable) stage of development, product life, patent position, market potential and regulatory issues. Commercially Reasonable Efforts shall be determined on a market-by-market basis for any particular Product or Licensee Owned Improvement Product, and it is anticipated that the level of effort will be different for different markets, and will change over time, reflecting changes in the status of the Product or Licensee Owned Improvement Product and the market(s) involved;
 - (g) “**Confidential Information**” means all information, regardless of its form:
 - (i) disclosed by UBC to the Licensee, whether before or after the Effective Date, and which is identified in writing as “Confidential”, which may include without limitation information and documents related to the Patents, Improvement Patents, Technology or any Improvements (including all derived analyses and conclusions); or
 - (ii) comprising the terms and conditions of this Agreement; or
 - (iii) disclosed by the Licensee to UBC and which is identified in writing as “Confidential”,except that “Confidential Information” does not include information:
 - (iv) possessed by the recipient (the “**Recipient**”) prior to receipt from the disclosing party (the “**Discloser**”), other than through prior disclosure by the Discloser, as evidenced by the Recipient’s business records;
 - (v) published or available to the general public otherwise than through a breach of this Agreement;

- (vi) obtained by the Recipient from a third party with a valid right to disclose it, provided that the third party is not under a confidentiality obligation to the Discloser; or
- (vii) independently developed by employees, agents or consultants of the Recipient who had no knowledge of or access to the Discloser's Confidential Information as evidenced by the Recipient's business records;
- (h) **"Diagnostic Field of Use"**; means any use of:
 - (i) the Patents, Improvement Patents, Technology, or any Improvements, or

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- (ii) any compositions, formulations, Products or Licensee Owned Improvement Products containing or developed using the Patents, Improvement Patents, Technology or any Improvements,
for the diagnosis in humans of the presence of disease, for the prediction of the risk of disease or disease outcome, for the prediction of the response to therapy, or for guiding, developing and conducting a course of therapy;
- (i) **"Dispute"** is defined in Article 11.5;
- (j) **"Effective Date"** means February 1, 2007, the date on which this Agreement is effective.
- (k) **"Effective Termination Date"** means the date on which this Agreement is terminated under Article 18;
- (l) **"FDA"** means the United States Food and Drug Administration, (or any other equivalent regulatory authority outside the U.S.);
- (m) **"First Use of the Technology"** means the earlier of either:
 - (i) the first use of the Licensed Patents, Technology or any Improvement, or
 - (ii) the first sale of a Product or Licensee Owned Improvement Product in exchange for valuable consideration;
- (n) **"Human Clinical Trials"** means any Product or Licensee Owned Improvement Product testing involving human subjects;
- (o) **"Improvements"** means collectively: (a) all UBC Improvements, (b) all Assigned Licensee Improvements; and (c) all Licensee Owned Improvements.
- (p) **"Improvements Patents"** means any and all patents and patent applications (anywhere in the world) owned or controlled by UBC or the Licensee that claim or cover an Improvement;
- (q) **"IND"** means an Investigational New Drug application in accordance with the rules and regulations of the FDA or foreign equivalents of such application;
- (r) **"Indemnitees"** is defined in Article 9.1;
- (s) **"Initial License Fee"** is defined in Article 3.5;
- (t) **"Licensed Patents"** means collectively: (a) the Patents, and (b) all Improvements Patents that claim or cover UBC Improvements or Assigned Licensee Improvements;
- (u) **"Licensee Owned Improvements"** means all improvements, variations, updates, modifications, and enhancements relating to the Patents or Technology made, discovered and/or acquired by the Licensee or any Sublicensee at any time after the Effective Date, which are based on or incorporate the Technology licensed under this Agreement, but excluding all Assigned Licensee Improvements. For clarity Licensee Owned Improvements includes any new

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- compounds made or discovered by Licensee or its Sublicensee(s) that: (i) are not claimed or covered by the Patents in existence prior to the initial manufacture or discovery of such new compounds, and (ii) are analogs of and synthesized based upon a compound, group of compounds, or pharmacophore that is claimed or covered by the Patents in existence prior to the initial manufacture or discovery of such new compounds;
- (v) **"Licensee Owned Improvement Products"** is defined in Article 5.2(b);
 - (w) **"Mediator"** is defined in Article 11.6;
 - (x) **"Milestone Events"** is defined in Article 6.1(a);
 - (y) **"Milestone Payments"** is defined in Article 6.1(a);
 - (z) **"Net Revenue"** means all revenues, receipts, money, and the fair market value of any shares or other securities, or other consideration collected or received whether by way of cash, credit or other value received by the Licensee and/or any Sublicensee from the marketing,

manufacturing, sale, distribution or other commercial disposition of Products or Licensee Owned Improvement Products to third party purchasers, less the following deductions to the extent actually accrued or allowed with respect to such sales:

- (i) Trade, quantity and early payment discounts off of the invoice price;
- (ii) amounts actually credited, rebated or allowed for rejections, returns or recalls of Products or Licensee Owned Improvement Products;
- (iii) governmental and managed care rebates or chargebacks to the extent actually incurred or allowed with respect to Products or Licensee Owned Improvement Products sold during the relevant time period to group purchasing organizations, hospitals or other buying groups;
- (iv) retroactive price reductions that are actually allowed or granted;
- (v) sales, excise and other taxes (other than taxes on the income of the selling party), duties and government charges;
- (vi) transportation, shipping and insurance to the extent separately reflected on the invoice; and
- (vii) amounts written off as uncollectible bad debt after making all commercially reasonable efforts to collect such amounts.

Sales of Product and Licensee Owned Improvement Products between or among Licensee and its Affiliated Companies or Sublicensees will be excluded from the computation of Net Revenues, but the subsequent final sales of such Product or Licensee Owned Improvement Products to Third Parties by such parties will be included in the computation of Net Revenues. Further, transfers or dispositions of Products or Licensee Owned Improvement Products in commercially reasonable quantities for charitable, sampling or promotional purposes or for preclinical, clinical, manufacturing scale-up, regulatory or governmental purposes shall not be considered a "sale" and shall not be included for purposes of calculating Net Revenues;

(aa) "**New Technology**" means inhibitors of indoleamine 2,3-dioxygenase, or methods of inhibiting indoleamine 2,3-dioxygenase, disclosed by the Investigators to UBC at any time during the Term of this Agreement that:

- (i) relate to the Patents or Technology in that they are directly competitive with, or may be used as a direct substitute for the Patents, Technology or any Improvement licensed under this Agreement; and
- (ii) are not covered or claimed by the Patents and do not directly incorporate the Technology licensed under this Agreement;

For clarity, the term "New Technology" includes compounds identified by the Investigators that are inhibitors of indoleamine 2,3-dioxygenase where such compounds have different pharmacophores compared to the compounds claimed or covered by the Patents;

(bb) "**Objectionable Material**" is defined in Article 10.3;

(cc) "**Option**" is defined in Article 2.4;

(dd) "**Option Period**" is defined in Article 2.5;

(ee) "**Patents**" mean collectively: the U.S., Canadian and foreign patents and patent applications identified in Schedule "A", and including all rights in such patents and applications and to any and all inventions that are disclosed in any such patent or application, and all:

- (i) counterparts, continuations, divisionals, continuing prosecution applications, and requests for continued examinations, extensions, term restorations, renewals, reissues, re-examinations, or substitutions of any such patent or applications;
- (ii) corresponding international patent applications;
- (iii) corresponding foreign patent applications, including supplementary protection certificates and other administrative protections; and
- (iv) international and foreign counterpart patents resulting therefrom;

all of which will be deemed added, from time to time, to Schedule "A";

(ff) "**Payment Report**" means a report in the form referred to in Article 12 setting out in detail how the amount of Revenue was determined;

(gg) "**Phase I Clinical Trial**" means a Human Clinical Trial that would satisfy the requirements for a Phase 1 study as defined in U.S. FDA 21 C.F.R. 312.21(b) (or any U.S. successor legislation) or similar regulations in a country outside the U.S.;

(hh) "**Phase II Clinical Trial**" means a Human Clinical Trial that would satisfy the requirements for a Phase 2 study as defined in U.S. FDA 21 C.F.R. 312.21(b) (or any U.S. successor legislation) or similar regulations in a country outside the U.S.;

- (ii) **“Phase III Clinical Trial”** means a Human Clinical Trial that would satisfy the requirements for a Phase 3 study as defined in U.S. FDA 21 C.F.R. 312.21(c) (or any U.S. successor legislation) or similar regulations in a country outside the U.S.;
- (jj) **“Product”** means a product, good or service: (i) that is covered or claimed by, or the manufacture or use of which is covered or claimed by, a Valid Claim in a Patent or Licensed Patent; and/or (ii) that incorporates or is based upon any material aspect of the Technology and/or any Improvements other than a Licensee Owned Improvement;
- (kk) **“Reagent Field of Use”** means any use of:
- (i) the Patents, Improvement Patents, Technology or any Improvements, or
 - (ii) any compositions, formulations, Products or Licensee Owned improvement Products containing or developed using the Patents, Improvement Patents, Technology or any Improvements,

outside the Diagnostic Field of Use and the Therapeutic Field of Use. For greater clarity it is confirmed that the Reagent Field of Use shall include all uses as chemical reagents or fine chemicals and any use that is not listed in the FDA Orange Book, or the Canadian or foreign equivalent of such listing as a drug product approved for use in humans;

- (ll) **“Royalty Due Dates”** means the last day of March, June, September and December of each year during the Term;
- (mm) **“Sublicense Agreement”** means any agreement under which rights are granted by the Licensee to a third party under the license rights granted by UBC to Licensee hereunder for the use, research, development, co-development, partnered development, manufacture, marketing or sale of Products or granting rights to such third party in the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements;
- (nn) **“Sublicensee”** means any third party who has directly or indirectly entered into a Sublicense Agreement with the Licensee, and shall include all sub-sublicensees of a particular Sublicensee;
- (oo) **“Sublicensing Fees”** means all initial or periodic license fees, development or commercialization fees, milestone payments or other payments received by the Licensee from a Sublicensee under the terms of any Sublicense Agreement to the extent such payments are based upon and are in consideration for the grant by Licensee of the sublicense under Licensee’s license rights granted by UBC under this Agreement, whether received in cash or other form (such as shares or other securities or other consideration, which for purposes of this Agreement shall be valued at fair market value at the time of receipt by Licensee), but excluding royalties calculated on the sales or other commercial disposition of Products or Licensee Owned Improvement Product by any Sublicensee. For greater clarity, it is confirmed that Sublicensing Fees will include any fees that are characterized as research or development fees **but solely** to the extent such fees are in excess of the direct reimbursement for the actual costs of research and development incurred by the Licensee pursuant to a written research plan

and agreement received by the Licensee from any Sublicensee relating to the Licensed Patents, Technology, Improvements, Products or any Licensee Owned Improvement Products (which direct reimbursement may be in the form of reasonable and typical FTE rates), and that any amounts received by Licensee from a Sublicensee as reimbursement for the actual costs of such research and development shall not be included in the term “Sublicensing Fees”. For further clarity, it is agreed that any amounts received by Licensee as consideration for issuance by Licensee to a Sublicensee of Licensee stock sold to Sublicensee at the fair market value of such stock, or as an arms length loan on commercially reasonable terms, or as direct reimbursement of patent prosecution costs, or as payment of a share of amounts recovered in enforcing patent or other intellectual property rights, shall be excluded from and not be included in the term “Sublicensing Fees”;

- (pp) **“Technology”** means all knowledge, know-how and/or technique or techniques invented, developed and/or acquired before the Effective Date by UBC relating to any of inventions disclosed in the Patents, and including the technology and materials described in Schedule “A”, as amended from time to time, including, without limitation all related research, data, specifications, instructions, manuals, papers or other related materials of any nature at all, whether written or otherwise, and UBC’s Confidential Information;
- (qq) **“Term”** is defined in Article 17.1;
- (rr) **“Therapeutic Field of Use”** means any use of:
- (i) the Patents, Improvement Patents, Technology or any Improvements, or
 - (ii) any compositions, formulations, Products or Licensee Owned Improvement Products containing or developed using the Patents, Improvement Patents, Technology or any Improvements,

for use in the cure, mitigation, treatment, or prevention of disease in humans, including the use of any Product or Licensee Owned Improvement Product that is the subject of an FDA-Approved New Drug Application and which is listed in the FDA Orange Book, or the Canadian or foreign equivalent;

- (ss) **“UBC Improvements”** means improvements, variations, updates, modifications, and enhancements relating to the Patents or Technology made, discovered and/or acquired by UBC at any time after the Effective Date, which are claimed or covered by the Patents, or if not claimed or covered by the Patents, are analogs of and synthesized based upon a compound, group of compounds, or pharmacophore that is claimed or covered by the Patents in existence prior to the initial manufacture or discovery of such new compounds. For clarity UBC Improvements do not include New Technology;
- (tt) **“UBC Trade-marks”** means any mark, trade-mark, service mark, logo, insignia, seal, design, symbol or device used by UBC in any manner at all;

(uu) “**Valid Claim**” is defined in Article 5.2(d); and

(vv) “**Withholding Taxes**” is defined in Article 5.7.

2.0 PROPERTY RIGHTS IN & TO THE PATENTS, TECHNOLOGY AND IMPROVEMENTS

2.1 UBC and Licensee acknowledge and agree that, as between the parties:

- (a) UBC owns all right, title and interest in and to the Licensed Patents, Technology, all UBC Improvements, all Assigned Licensee Improvements, and all New Technology, subject only to the licensee rights and other rights granted by UBC to Licensee under this Agreement; and
- (b) the Licensee owns all right, title and interest in and to the Licensee Owned Improvements and all patents that claim or cover such Licensee Owned Improvements.

2.2 The parties will each at the request of the other sign all documents as may be reasonably required to ensure that ownership of the Technology, Improvements, Patents, Improvement Patents and New Technology are assigned to and remain with the party identified in Article 2.1 as owning such Technology, Patents, Improvement Patents, and New Technology.

2.3 On the last working day of June and December of each year during the Term, the Licensee will give notice to UBC of the details of all Assigned Licensee Improvements and Licensee Owned Improvements that the Licensee and/or any Sublicensees of the Licensee have made or developed during the previous six month period.

2.4 UBC hereby grants to the Licensee an option (the “**Option**”) to obtain an exclusive, world-wide license to use and sublicense any New Technology (and including any patent or other intellectual property covering such New Technology), provided that:

- (a) the Investigator is at the time of the discovery of such New Technology and its disclosure to UBC still an employee of UBC and subject to UBC’s policies in making such discovery, including UBC’s Patents and Licensing Policy 88; and
- (b) the Licensee is not at the time of exercise of the Option in material breach of this Agreement or any other agreement with UBC.

To the extent that there are any inconsistencies between the Option as set out in this Agreement and the terms of any collaborative research agreement under which the development of any New Technology was sponsored by the Licensee, the terms of the collaborative research agreement will prevail.

2.5 The period for exercise by the Licensee of the Option, with respect to particular New Technology, will be 6 months starting from the date of disclosure by UBC to the Licensee of the particular New Technology (the “**Option Period**” with respect to such New Technology). Such disclosure shall include reasonably relevant information relating to the New Technology as is in the possession of UBC’s Industry Liaison Office and which it is able to disclose to the Licensee.

2.6 In order to exercise the Option with respect to particular New Technology disclosed by UBC to Licensee, the Licensee will sign and deliver to UBC prior to the expiry of the Option Period applicable to such New Technology a Notice of Exercise of Option in the form attached as Schedule “**B**”, together with a summary business plan prepared in accordance with generally accepted business standards that describes the steps that the Licensee proposes to

take to commercially exploit the New Technology including relevant market information and revenue projections.

2.7 During the Option Period as to a particular New Technology, UBC will not grant any license to commercially exploit the New Technology to any other party. If the Licensee does not exercise the Option within the Option Period in accordance with Article 2.6 as to such New Technology, the parties agree that the Option will expire with respect to such item of New Technology, and UBC will thereafter be free to deal with and commercialize such New Technology in any way, and without further obligation to the Licensee.

2.8 If the Licensee validly exercises the Option for a particular item of New Technology as provided in Article 2.6, then the parties will negotiate exclusively and in good faith to determine the specific terms and conditions on which a new exclusive (or, if elected by Licensee, non-exclusive) license will be granted by UBC to the Licensee under such New Technology. Such new license agreement shall be on commercially reasonable terms typical for similar license agreements, including commercially reasonable royalty rates and other financial terms and shall be generally consistent with the terms and conditions of this Agreement. The parties shall seek in good faith and using diligent efforts to reach agreement on such terms and to enter into such new license agreement as soon as practicable after Licensee exercises the Option.

2.9 If UBC and the Licensee are unable, despite each party using good faith efforts, to agree upon the specific terms and conditions of a new license agreement within a period of 6 months after the date when the Licensee exercises the Option pursuant to Article 2.6 with respect to a particular item of New Technology, then the Option as to such particular New Technology shall expire.

2.10 Any new license granted by UBC with respect to any New Technology shall provide UBC the right in perpetuity to use the New Technology without charge in any manner whatsoever for research, scholarly publication, educational or other non-commercial uses.

3.0 GRANT OF LICENSE

3.1 Subject to Article 3.4, UBC grants to the Licensee the worldwide, exclusive license to use, practice and sublicense the Licensed Patents, Technology, UBC Improvements and any Assigned Licensee Improvements, and to research, develop, manufacture, have made, distribute, use, import, offer for sale and sell the Products and Licensee Owned Improvement Products on the terms and conditions set out in this Agreement.

3.2 The license granted under this Agreement is granted only to the Licensee and not to any Affiliated Companies.

3.3 The Licensee will not enter into a Naked Cross-License Agreement involving the Licensed Patents, Technology, UBC Improvements, or any Assigned Licensee Improvements without the prior written consent of UBC, such consent not to be unreasonably withheld. For the purposes of this section a “Naked Cross-License Agreement” means an agreement between the Licensee and a third party possessing certain technology, that:

- (a) involves the Licensee granting license rights under the Licensed Patents, Technology, UBC Improvements, or any Assigned Licensee Improvements to such third party, and such third party granting to the Licensee, in consideration of

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such license rights granted by Licensee, license right under the third party’s technology, and

- (b) is entered into by the Licensee and such third party without the third party agreeing to pay to the Licensee and consideration other than the exchange of license rights described in subsection (a) of this definition.

3.4 The Licensee acknowledges and agrees that, notwithstanding the exclusive license granted by UBC under Article 3.1, UBC may use the Patents, Licensed Patents, Technology and any Improvements (other than Licensee Owned Improvements) without charge in any manner at all for research, scholarly publication, educational and all other non-commercial uses.

3.5 As a condition of UBC granting this license, the Licensee agrees to pay to UBC an initial license fee of [*] (U.S. funds) (the “**Initial License Fee**”). The Initial License Fee will be paid concurrently with the execution of this Agreement, and will not be refunded to the Licensee (in whole or in part) under any circumstances.

3.6 UBC may register a financing statement regarding this Agreement under the *Personal Property Security Act* of British Columbia and/or under similar legislation in those jurisdictions in which the Licensee carries on business and/or has its chief place of business.

3.7 The Licensee will use reasonable efforts to give notice to UBC if it is carrying on business and/or locates its chief place of business in a jurisdiction outside British Columbia before starting business in that other jurisdiction. If UBC has registered a financing statement under Article 3.6, the Licensee will use reasonable efforts to provide UBC notice within 45 days of any change in jurisdiction.

3.8 On execution of this Agreement, the Licensee will pay to UBC the sum of [*] (Canadian Funds) to reimburse UBC for all outside patent expenses invoiced to UBC or its agents, directly in connection with the filing or prosecution of the Patents prior to February 1, 2007, and UBC will confirm such amount by providing to the Licensee copies of the invoices submitted to UBC for such activities. To the extent that any such patent expenses have not been invoiced to UBC prior to February 1, 2007, and are therefore not included in the [*] (Canadian Funds), amount, and to the extent that UBC incurs any additional outside patent expenses after the Effective Date for filing or prosecution of the Patents, the Licensee agrees that it will within 30 days of presentation by UBC to the Licensee of the invoices for such activities, reimburse to UBC the balance of such patent expenses.

4.0 SUBLICENSING

4.1 The Licensee may enter into Sublicense Agreements with its Affiliated Companies or any other third party, without UBC’s prior consent, provided that each such Sublicense Agreement is consistent with the terms and conditions contained in this Agreement, and that each such Sublicense Agreement shall contain the mandatory sublicensing provisions contained in Schedule “C” which provisions shall not be materially revised or amended without first obtaining the prior written consent of UBC, which consent shall not be unreasonably withheld. Within 10 business days of signing any Sublicense Agreement, the Licensee will provide to UBC a fully executed unredacted copy of each Sublicense Agreement and a certification signed by a senior officer of the Licensee that such Sublicense Agreement is consistent with the terms and conditions of this Agreement and includes the mandatory sublicensing provisions contained in Schedule “C”.

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4.2 Any Sublicense Agreement granted by the Licensee will be granted only to the Sublicensee and cannot be assigned or further sub-sublicensed without the prior written consent of UBC, such consent not to be unreasonably withheld.

4.3 Promptly after executing a Sublicense Agreement, the Licensee will use reasonable efforts to give notice to UBC of the jurisdictions in which the Sublicensee is carrying on business. If the Licensee, during the term of the Sublicense Agreement, becomes aware of the Sublicensee carrying on business in another jurisdiction, then the Licensee will use reasonable efforts to give notice to UBC within 45 days.

5.0 ROYALTIES

5.1 In consideration of the license granted under this Agreement, the Licensee will pay to UBC a royalty equal to:

- (a) [*] of the Net Revenue arising from sales of Products in [*] in [*] where [*];
- (b) [*] of the Net Revenue arising from sales of:
 - (i) Licensee Owned Improvement Products in the [*], and
 - (ii) Products in the [*] in [*] where [*];

- (c) [*] of the Net Revenue arising from sales of Products [*] in [*] where [*];
- (d) [*] of the Net Revenue arising from sales of:
 - (i) Licensee Owned Improvement Products in the [*], and
 - (ii) Products in the [*] in [*] where the [*];
- (e) [*] of the Net Revenue arising from sales of Products in the [*] in [*] where [*]; and
- (f) [*] of the Net Revenue arising from sales of:
 - (i) Licensee Owned Improvement Products in the [*], and
 - (ii) Products in the [*] in [*] where the [*].

5.2 For greater clarity it is confirmed that:

- (a) the royalties set out in Article 5.1 will be payable by the Licensee on all Revenue regardless of whether such Revenue is received by the Licensee or any Sublicensee(s);
- (b) “**Licensee Owned Improvement Products**” shall be defined as meaning products, goods or services:
 - (i) that are covered or claimed by, or the manufacture or use of which is covered or claimed by, a Valid Claim in a patent filed with respect to a Licensee Owned Improvement; and/or

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- (ii) that incorporate or are based upon any material aspect of a Licensee Owned Improvement provided that such products, goods or services are not also covered or claimed by a Patent or Licensed Patent;
- (c) if any Net Revenue may be categorized as arising from one or more of the fields of use listed in Articles 5.1(a) through (f) above, then the royalty rate applicable to such Net Revenue shall be the one that is most favourable to UBC; for clarity, Licensee shall pay UBC royalties under Article 5.1 based on sales of a particular Product or Licensee Owned Improvement Product on a country by country basis at only one royalty rate, as determined under one of the subsections in Article 5.1 above (and no more than one rate with respect to sales in any single country);
- (d) “**Valid Claim**” shall be defined as meaning a claim in a pending, issued or granted Patent or Improvement Patent that, at the time of sale of the applicable Product or Licensee Owned Improvement Product:
 - (i) has not expired, lapsed, been cancelled or become abandoned;
 - (ii) has not been admitted to be invalid through reissue or disclaimer or otherwise; or
 - (iii) has not been finally found to be invalid (or not valid) or unenforceable by an unreversed or unappealable final decision or judgment of a court or other authority or agency of competent jurisdiction.

Any claim being presented in a pending patent application that is being prosecuted in good faith shall be deemed to be the equivalent of a valid claim of an issued, unexpired patent until disallowed, rejected or abandoned.

5.3 The royalty is due and payable within 60 days of each respective Royalty Due Date and is to be calculated with respect to the Revenue in the three month period immediately before the applicable Royalty Due Date.

5.4 All royalties paid by the Licensee to UBC under this Agreement will be in Canadian dollars without any reduction or deduction of any nature or kind at all, except as provided in Section 5.7. If the Licensee or any Sublicensee receives any Revenue in a currency other than Canadian dollars, Licensee will calculate the amount of royalties owed in such currency, and such amount will then be converted to the equivalent in Canadian dollars on the date that any amount is payable to UBC, at the rate of exchange set by the Bank of Montreal for buying Canadian dollars with such currency. The amount of royalties owed in Canadian dollars resulting from the conversion is to be paid to UBC.

5.5 Products and Licensee Owned Improvement Products are deemed to have been sold by the Licensee or a Sublicensee and included in the Revenue when invoiced, delivered, shipped, or paid for, whichever is the first.

5.6 Any transaction or other commercial disposition involving the Patents, Improvement Patents, Technology, Improvements, Products or any Licensee Owned Improvement Products, between the Licensee or any Sublicensee and another person, that is not made at fair market value is deemed to have been made at fair market value, and the fair

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market value of the transaction, disposition, or other dealing will be added to and deemed part of the Revenue and will be included in the calculation of royalties under this Agreement.

5.7 The parties acknowledge that, since UBC is a non-profit, tax exempt, publicly funded educational institution, and as such UBC should not be subject to any withholding or other similar taxes on any payments made by the Licensee to UBC under this Agreement. However, if Licensee determines that it is required to pay or withhold on account of UBC amounts of taxes which are otherwise payable by UBC pursuant to any applicable law, including, but not limited to, United States federal, state or local tax law (“**Withholding Taxes**”), the Licensee will inform UBC of such determination and the parties will discuss the matter in good faith and seek diligently to determine if there is any legal mechanism (which does not impose any additional costs or burdens on Licensee) to avoid paying or withholding such Withholding Tax. Any such Withholding Taxes required by law to be paid or withheld shall be an expense of, and borne solely by UBC if UBC is the party on which the Withholding Taxes are levied, and if Licensee is required to withhold such Withholding Tax, Licensee may deduct the tax from the applicable payment, provided that Licensee submits to UBC reasonable proof of payment of such Withholding Taxes, together with an accounting of the calculations of such taxes, within 30 days after such Withholding Taxes are remitted to the proper authority. The parties will cooperate reasonably in completing and filing documents required under the provisions of any applicable tax laws or under any other applicable law in connection with the making of any required tax payment or withholding payment, or in connection with any claim to a refund of or credit for any such payment.

6.0 MILESTONES AND ANNUAL PAYMENTS

6.1 In addition to all other payments due pursuant to this Agreement, the Licensee shall pay to UBC the following payments

- (a) if the Licensee has not executed a Sublicense Agreement for use of the Licensed Patents, Technology or any Improvements within the Therapeutic Field of Use, then the Licensee shall pay to UBC the applicable of the following milestone payments (the “**Milestone Payments**”) on Licensee’s achievement of each of the following applicable events with respect to each Product or Licensee Owned Improvement Product (the “**Milestone Events**”):

Milestone Event	Milestone Payment Amount (in US \$)	
	Product	Licensee Owned Improvement Product
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

- (b) subject to Article 6.2 and 6.3, all Milestone Payments shall be payable by the Licensee to UBC within 30 days of December 31st of the year during which the applicable Milestone Event was achieved;
- (c) if the Licensee has executed a Sublicense Agreement for use of the Licensed Patents, Technology or any Improvements within the Therapeutic Field of Use, and in addition to entering into such Sublicense, the Licensee develops one or more Products or Licensee Owned Improvement Products within the Therapeutic Field of Use independent of the Sublicense Agreement, then the Licensee will pay to UBC the applicable Milestone Payments set out in Article 6.1(a) on the Licensee’s achievement of the Milestone Events for such Products or Licensee Owned Improvement Products being developed by the Licensee independent of the Sublicense Agreement and on executing any further Sublicense Agreement with respect to such Products or Licensee Owned Improvement Products being developed by the Licensee, the Licensee will pay to UBC the greater of the Milestone Payments or Sublicensing Fees received by the Licensee in accordance with either Article 6.2 or 6.3 dependent on the stage of development of such Products or Licensee Owned Improvement Products as of the date that such further Sublicense Agreement is entered into. Such payments shall be paid to UBC regardless of whether there are any amounts payable by the Licensee under Article 6.2 and 6.3 with respect to the Sublicensee’s development of different Products or Licensee Owned Improvement Products developed under the Sublicense Agreement;
- (d) each year during the Term of this Agreement the Licensee will also pay to UBC on the dates set out below an annual payment equal to the amounts set out below (the “**Annual Payment**”). This Annual Payment will not be refunded to the Licensee (in whole or in part) under any circumstances:
 - (i) [*] [*]
 - (ii) [*] [*]
 - (iii) [*] [*]
 - (iv) [*] [*]
 - (v) [*] [*]
 - (vi) [*], and on [*], of each subsequent year thereafter [*]

6.2 Subject to Article 6.3, if the Licensee has executed a Sublicense Agreement for use of the Licensed Patents, Technology or any Improvements within the Therapeutic Field of Use, then upon the Sublicensee achieving a Milestone Event (as listed in the schedule in Article 6.1(a) above), the Licensee will pay to UBC the greater of either:

- (a) the Milestone Payment identified in the [*] column of the table in Article 6.1(a) above with respect to achievement of such Milestone Event, and

- (b) a percentage of the total Sublicensing Fees received by Licensee from its Sublicensee under the terms of such Sublicense Agreement (which percentage will be determined in accordance with the following schedule) during the applicable period as provided expressly in Section 6.4:

Milestone Event	Percentage of Sublicensing Fees
If the Sublicense Agreement is executed prior to [*]	[*]
If the Sublicense Agreement is executed subsequent to [*]	[*]

6.3 If the Licensee has executed a Sublicense Agreement within the Therapeutic Field of Use, that grants such Sublicensee a license with respect to the Licensee Owned Improvements, and such Sublicense Agreement does not include a grant of any rights with respect to the Licensed Patents, Technology or any Improvements (other than the Licensee Owned Improvements) then upon the Sublicensee achieving a Milestone Event (as listed in the schedule in Article 6.1(a) above), the Licensee will pay to UBC the greater of either:

- (a) the Milestone Payment identified in the “Licensee Owned Improvement Product” column of the table in Article 6.1(a) above with respect to achievement of such Milestone Event, and
- (b) a percentage of the total Sublicensing Fees received by Licensee from its Sublicensee under the terms of such Sublicense Agreement (which percentage will be determined in accordance with the following schedule) during the applicable period as provided expressly in Section 6.4:

Milestone Event	Percentage of Sublicensing Fees
If the Sublicense Agreement is executed prior to [*]	[*]
If the Sublicense Agreement is executed subsequent to [*]	[*]

6.4 With respect to all Milestone Events achieved by a particular Sublicensee under a Sublicense Agreement during a particular calendar year, Licensee shall make the determination under Article 6.2 or 6.3, of whether Licensee will make payments under Article 6.2(a) or 6.3(a) above for such Milestone Event achievements (i.e., make the Milestone Payments under Article 6.1(a) owed with respect to such Milestone Events) or will pay a percentage of the Sublicensing Fees received under Article 6.2(b) or 6.3(b) from such Sublicensee, on an annual basis and will make such calculation effective as of December 31st of such year. For this purpose, the Licensee will prepare and deliver to UBC within 30 days of December 31st of each year a report and an accounting statement which sets out a comparison of:

- (a) all of the Sublicensing Fees received by the Licensee from such Sublicensee during the period starting on the later of (i) the execution of the Sublicense Agreement or (ii) December 31 of the year of achievement by the Sublicensee of the last Milestone Event in respect of which the Licensee has made a payment to UBC under Article 6.2 or 6.3; and ending on December 31 of the applicable year for which the report is delivered to UBC, and

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- (b) the Milestone Event(s) that were achieved by the Sublicensee during the calendar year period ending on such December 31; and
- (c) a calculation showing the comparison of the total amounts that would be payable by Licensee under Article 6.2(a) or 6.3(a) based on achievement of such Milestone Events during such year, and the total amount that would be payable under Article 6.2(b) or 6.3(b), by applying the appropriate percentage to the total Sublicensing Fees received by Licensee from such Sublicensee during the period specified in subsection (a) above.

The Licensee will also deliver to UBC along with the report and accounting statement referred to above, the amount determined to be payable to UBC in accordance with either Article 6.2(a) or (b); or 6.3(a) or 6.3(b).

For example, if a Sublicensing Agreement is executed after [*], and such Sublicensee [*] a Product during a particular calendar year (and that completion is the first Milestone Event achieved by such Sublicensee after executing the Sublicensing Agreement), then for achievement of such Milestone Event the Licensee will pay to UBC, under the terms of Article 6.2 and this Article 6.4, the greater of:

(i) [*] (the amount identified in Article 6.1(a) above for achievement of such Milestone Event) and (ii) [*] of all Sublicensing Fees paid to Licensee by such Sublicensee under such Sublicensing Agreement through to December 31 of such calendar year. If such Sublicensee subsequently [*] the same Product, then for achievement of such Milestone Event the Licensee will shall pay to UBC, under Article 6.2, the greater of: (i) [*] (the amount identified in Article 6.1(a) above for achievement of such Milestone Event), and (ii) an amount equal to [*] of all Sublicensing Fees paid to Licensee by such Sublicensee under such Sublicensing Agreement *after* December 31 of the year in which the [*] Milestone Event was achieved by such Sublicensee, *through* to December 31 of the calendar year in which such [*] Milestone Event was achieved by such Sublicensee.

6.5 The Licensee will pay to UBC, in addition to all other amounts due under this Agreement, an annual maintenance fee of U.S. [*] (the “Annual Maintenance Fee”). The Annual Maintenance Fee is payable on or before April 1 of each year during the Term, starting on April 1, 2007 and will not be refunded to the Licensee (in whole or in part) under any circumstances.

7.0 PATENTS

7.1 UBC will, on the request of the Licensee, take reasonable steps to apply for a patent with respect to the Technology, UBC Improvements, or any Assigned Licensee Improvements in the name of UBC provided that the Licensee pays all costs of applying for, registering and maintaining the patent in the jurisdictions in which the Licensee designates that a patent is required, and such patent shall be deemed included in the Licensed Patents. The Licensee will on UBC’s request pay to UBC a reasonable payment as an advance against expected patent expenses over the next 3 months with respect to any such requested filing.

7.2 On the filing (thereafter including after issuance) of a Licensed Patent filed under Article 7.1, the Licensee becomes the licensee of the Licensed Patent on the terms and conditions set out in this Agreement.

7.3 Throughout the Term, the Licensee will within 30 days of presentation of receipts and/or invoices by UBC to the Licensee showing the amounts actually charged by Licensee's external patent counsel of for filing fees or similar external prosecution costs, reimburse to UBC the balance of all out-of-pocket patent filing, prosecution and maintenance costs incurred to such date regarding the Licensed Patents.

7.4 The Licensee will not contest the validity or scope of the Licensed Patents or the Technology, Improvements or any New Technology, to the extent such restriction is permitted by applicable law.

7.5 To the extent required by applicable law, the Licensee will ensure proper patent marking for all uses of the Licensed Patents licensed under this Agreement and will clearly mark the appropriate patent numbers on any Products covered by the Licensed Patents.

8.0 DISCLAIMER OF WARRANTY

8.1 Except as otherwise expressly provided in Article 8.3, UBC makes no representations, conditions or warranties, either express or implied, regarding the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products. Without limitation, UBC specifically disclaims any implied warranty, condition or representation that the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Product:

- (a) correspond with a particular description;
- (b) are of merchantable quality;
- (c) are fit for a particular purpose; or
- (d) are durable for a reasonable period of time.

UBC is not liable for any loss, whether direct, consequential, incidental or special, that the Licensee or other third parties suffer arising from any defect, error or fault of, or failure to perform by, the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products, even if UBC is aware of the possibility of the defect, error, fault or failure. The Licensee acknowledges that it has been advised by UBC to undertake its own due diligence regarding the Licensed Patents, Technology and any Improvements.

8.2 Nothing in this Agreement:

- (a) constitutes a warranty or representation by UBC as to title to the Licensed Patents, Technology or any Improvements, except as provided in Section 8.3 below, or that anything made, used, sold or otherwise disposed of under the license granted in this Agreement will not infringe the patents, copyrights, trademarks, industrial designs or other intellectual property rights of any third parties, including any patents, copyrights, trade-marks, industrial design or other intellectual property rights owned, in whole or in part, by UBC, or licensed by UBC to any third parties;
- (b) constitutes an express or implied warranty or representation by UBC that the Licensee has, or will have the freedom to operate or practice the Licensed Patents, Technology or any Improvements, or the freedom to make, have made, use, sell or otherwise dispose of Products or Licensee Owned Improvement Products; or

- (c) imposes an obligation on UBC to bring, prosecute or defend actions or suits against third parties for infringement of patents, copyrights, trade-marks, industrial designs or other intellectual property or contractual rights.

8.3 UBC hereby represents and warrants to Licensee that as of the Effective Date to the best of the knowledge of the UBC staff having responsibility for the commercialization of this Technology at the UBC Industry Liaison Office, and without having made any specific inquiry:

- (a) as between UBC and the inventors or the Technology employed by UBC, UBC has been assigned ownership of the Technology and the Patents;
- (b) UBC has corporate power and authority to grant, and is not prohibited by any legislation from granting, a license of technology under the Patents and the Technology under this Agreement; and
- (c) UBC has not previously granted to any third party any license to commercially exploit the Patents and/or the Technology that materially conflict with the license rights granted to the Licensee under this Agreement.

8.4 Notwithstanding Article 8.2, if there is an alleged infringement or misappropriation of the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements or any right with respect to the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements, the Licensee may take all appropriate steps, short of starting legal action, to stop or enjoin such infringement or misappropriation of the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements, and will consult with UBC regarding such steps. If it is necessary to start any legal action to stop or enjoin any infringement or misappropriation of the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements and/or to recover damages from such infringement or misappropriation, the Licensee may do so, provided that the Licensee first obtains UBC's prior written consent to initiate such action, which consent shall not be unreasonably withheld or delayed, and that the Licensee shall keep UBC reasonably informed regarding the progress of such action and indemnify UBC against any claims made against UBC by the defendant in such action

based upon or relating to such action or the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements. Provided that it has first granted its prior written consent, such consent not to be unreasonably withheld, UBC agrees to reasonably co-operate to the extent of signing all necessary documents or to join as a party plaintiff if legally required. All the direct and indirect costs and expenses of Licensee in bringing and conducting the legal action or settlement shall be paid by the Licensee including any out-of-pocket costs and expenses of UBC in its providing assistance. All recoveries from such legal action are for the benefit of, and shall be retained by, the Licensee.

8.5 If any complaint alleging infringement of any patent or other proprietary rights is made against the Licensee or a Sublicensee based upon the use of the Patents, improvement Patents, Technology or any Improvements or the manufacture, use or sale of the Products, the following procedure will be adopted:

- (a) the Licensee will promptly notify UBC on receipt of the complaint and will use reasonable efforts to keep UBC reasonably informed of the actions and positions taken by the complainant and taken or proposed to be taken by the Licensee on behalf of itself or a Sublicensee (to the extent such information can be disclosed without breaching confidentiality obligations or court orders or destroying privilege);

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- (b) except as provided in Article 8.5(d), all costs and expenses incurred by the Licensee or any Sublicensee in investigating, resisting, litigating and settling the complaint, including the payment of any award of damages and/or costs to any third party, will be paid by the Licensee or any Sublicensee, as the case may be;
- (c) Licensee shall not make any final disposition of the complaint in a manner that materially negatively impacts the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements without full consultation with, and approval by, UBC, such approval not to be unreasonably withheld;
- (d) UBC may elect to participate as a party in any litigation involving the complaint to the extent that the court may permit, *provided that* UBC shall not take any actions that materially negatively impact Licensee's interests under this Agreement or in such litigation, and any direct additional expenses incurred by the Licensee as the result of such participation will be paid by UBC (subject to the possibility of recovery of some or all of the additional expenses from the complainant); and
- (e) the Licensee will pay all royalties payable under Article 5.1 of this Agreement to UBC in trust from the date UBC receives notice of the complaint and until a resolution of the complaint has been finalized. If the complainant is successful, then the royalties paid to UBC in trust under this Article 8.5(e) will be returned to the Licensee, provided that the amount being returned to the Licensee is no more than the amount paid by the Licensee to the complainant in the settlement or other disposition of the complaint. If the complainant does not succeed, then UBC retains all royalties paid to it under this Article 8.5(e).

9.0 INDEMNITY & LIMITATION OF LIABILITY

9.1 The Licensee indemnifies, holds harmless and defends UBC, its Board of Governors, officers, employees, faculty, students, invitees and agents (the "**Indemnitees**") against any and all third party claims (including all associated legal fees and disbursements actually incurred) against any such Indemnitee arising out of the exercise by Licensee (or its Sublicensees) of any rights granted to Licensee under this Agreement, including without limitation against any damages or losses, consequential or otherwise, arising from any third party claim based in any manner at all from or out of the use of the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Product licensed under this Agreement, by the Licensee or its Sublicensees or their customers or end-users.

9.2 UBC's total liability, whether under the express or implied terms of this Agreement, in tort (including negligence) or at common law, for any loss or damage suffered by the Licensee, whether direct, indirect or special, or any other similar damage that may arise or does arise from any breaches of this Agreement by UBC, its Board of Governors, officers, employees, faculty, students or agents, is limited to **[*]**, less amounts actually paid by UBC to the inventors of the Licensed Patents, Technology or Improvements out of such payments received by UBC from the Licensee based on such inventorship in accordance with UBC's policies regarding payments to its inventors, and *provided that* any such liability on the part of UBC in excess of CDN. **[*]** may be recovered by the Licensee solely out of, and as a set off against, amounts payable by the Licensee to UBC under this Agreement after the date of any award of such damages or other liability.

9.3 Subject to Article 9.1, each Party acknowledges and agrees that the other Party will not be liable for any special, punitive, consequential or incidental damages arising from any breach or breaches of this Agreement.

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9.4 Notwithstanding the termination or expiration of this Agreement, the rights and obligations in Article 9 will survive and continue to bind the each party and its successors and assigns.

10.0 PUBLICATION & CONFIDENTIALITY

10.1 Each party will keep and use the other party's Confidential Information in confidence and will not, without the other party's prior written consent, disclose the other party's Confidential Information to any person or entity, except to the party's permitted sublicensees (if such party is Licensee) directors, officers, employees, faculty, students and professional advisors who require the Confidential Information to assist such party in performing its obligations or exercising its rights under this Agreement. Each party will use the other party's Confidential Information solely for the purposes permitted under this Agreement and will not, without the other party's prior written consent, use the other party's Confidential Information for any other purpose. The Licensee will maintain an appropriate internal program limiting the distribution of JBC's Confidential Information to only those Sublicensees, officers, employees and professional advisors who require such Confidential Information in performing the Licensee's obligations or exercising its rights under this Agreement and who have signed appropriate nondisclosure agreements.

10.2 Notwithstanding the foregoing, a party may disclose the other party's Confidential Information to the extent such disclosure is required by judicial or administrative process, provided that such party will promptly notify the other party of such requirement and allow it reasonable time to oppose the

process before disclosing the specific Confidential Information.

10.3 UBC is not restricted from presenting at symposia, national or regional professional meetings, or from publishing in journals or other publications, accounts of its research relating to the Licensed Patents, Technology and any Improvements (other than Licensee Owned Improvements), provided that with respect to the Confidential Information only, the Licensee is provided with copies of the proposed disclosure at least 60 days before the presentation or publication date and does not, within 30 days after delivery of the proposed disclosure, give notice to UBC indicating that it objects to the proposed disclosure. Any objection to a proposed disclosure will specify the portions of the proposed disclosure considered objectionable (the "Objectionable Material"). On receiving notice from the Licensee that any proposed disclosure contains Objectionable Material, UBC and the Licensee agree to work together to revise the proposed disclosure to remove or alter the Objectionable Material in a manner acceptable to both the Licensee and UBC, in which case the Licensee will withdraw its objection. UBC is not restricted from publishing or presenting the proposed disclosure as long as the Objectionable Material has been removed. Any Objectionable Material will not be disclosed for six months from the date UBC delivered the proposed disclosure to the Licensee. After six months from the date UBC delivered the proposed disclosure to the Licensee, UBC is free to present and/or publish the proposed disclosure whether or not it contains Objectionable Material.

10.4 The Licensee requires of UBC, and to the extent permitted by law UBC agrees, that this Agreement, and each part of it, is confidential and will not be disclosed to third parties, as the Licensee claims that the disclosure would or could reveal commercial, scientific or technical information and would significantly harm the Licensee's competitive position and/or interfere with the Licensee's negotiations with prospective Sublicensees. Notwithstanding anything contained in Article 10, the Licensee acknowledges and agrees that UBC may identify the title of this Agreement, the parties to this Agreement and the names of the inventors of the Licensed Patents, Technology and any Improvements, and that UBC may also disclose to the

inventors of the Licensed Patents and Technology the amount of all payments made to UBC by the Licensee under this Agreement, the manner or method by which such payments were calculated and all Payment Reports delivered to UBC by the Licensee in connection with such payments.

10.5 Notwithstanding the termination or expiration of this Agreement, the rights and obligations in Article 10 survive and continue to bind the parties, their successors and assigns.

11.0 PRODUCTION & MARKETING

11.1 The Licensee will not knowingly use the UBC Trade-marks or make reference to UBC or its name in any advertising or publicity, without the prior written consent of UBC. Without limitation, the Licensee will not issue a press release regarding this Agreement or the 'Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements without first obtaining UBC's written approval, such approval not to be unreasonably withheld or delay, and provided that Licensee shall be permitted to make such public disclosures regarding the existence or terms of this Agreement as are required to comply with applicable law or regulation. If the Licensee is required by law or regulation to disclose the Agreement or any of its terms, the Licensee will provide UBC with reasonable prior notice to permit UBC to bring an application or other proceeding to contest the requirement.

11.2 The Licensee represents and warrants to UBC that it has the infrastructure, expertise and resources to:

- (a) develop and commercialize the Licensed Patents, Technology and any Improvements;
- (b) track and monitor on an ongoing basis performance under the terms of each Sublicense Agreement;
- (c) monitor patent infringement regarding any patent relating to the Licensed Patents, Technology and any Improvements licensed under this Agreement; and
- (d) handle the Licensed Patents, Technology and any Improvements with care and without danger to the Licensee, its employees, agents, or the public.

11.3 The Licensee agrees that it will, throughout the Term:

- (a) use Commercially Reasonable Efforts to develop and commercialize the Licensed Patents, Technology and any Improvements allocating at least the same degree of diligence, expertise, infrastructure, and resources as the Licensee is allocating to other products developed and marketed by the Licensee that have a similar profit potential, are at the same stage of development, and have similar product life, patent position, market potential and regulatory issues; and
- (b) use Commercially Reasonable Efforts to promote, market and sell the Product and Licensee Owned Improvement Product (once Regulatory Approval is achieved) in the applicable countries and exploit the Licensed Patents, Technology and any Improvements and to meet or cause to be met the market demand for the approved Products and Licensee Owned Improvement Products and the potential use of the Licensed Patents, Technology and any Improvements.

11.4 Without Limiting the generality of the obligations set out in Article 11.3, the Licensee will use Commercially Reasonable Efforts to [*] according to the following development timeline:

- (a) Licensee will use Commercially Reasonable Efforts to [*] within [*] of the Effective Date;
- (b) Licensee will Use Commercially Reasonable Efforts to [*] within [*] of the Effective Date;
- (c) Licensee will use Commercially Reasonable Efforts to [*] within [*] of the Effective Date; and

- (d) Licensee will use Commercially Reasonable Efforts to [*] within [*] of the Effective Date.

It is understood and agreed that actions by any Sublicensee may satisfy any of the above timeline matters. The Licensee further acknowledges UBC's objective in licensing the Licensed Patents, Technology and any Improvements to the Licensee is that the Licensee use Commercially Reasonable Efforts to promote, market and sell Products (once Regulatory Approval is achieved) for use in several therapeutic fields, including possible [*]. Therefore, if the Licensee is developing a Product for a particular therapeutic field in accordance with the timelines set out in Articles 11.4(a) through (d), but is unable to develop, or cause to be developed other Product(s) within one or more other therapeutic fields of use, then the Licensee will at the request of UBC consider in good faith the grant by the Licensee of one or more sublicenses of the Licensed Patents, Technology and any Improvements on commercially reasonable terms to a third party or parties identified by UBC as being able to develop, or cause to be developed Product(s) within one or more of the therapeutic fields of use not being exploited by the Licensee.

11.5 If UBC believes in good faith that the Licensee is in material breach of Article 11.3, UBC may give notice to the Licensee under Article 18.3, which notice shall specify particulars of the alleged breach. Within 30 days of receiving UBC's notice, the Licensee shall provide notice to UBC of its election to:

- (a) proceed with remedying the breach in accordance with Article 18.3, or
- (b) dispute the breach ("**Dispute**") and refer the Dispute to mediation in accordance with Articles 11.6; or
- (c) accept the breach.

If the Licensee elects to proceed with remedying the breach, then the Licensee will be deemed to have waived any right to refer the matter to mediation in accordance with Article 11.6. If the Licensee fails to make an election in accordance with this Article, then the Licensee will be deemed to have accepted the breach and UBC may terminate this Agreement.

11.6 If the Licensee elects to refer the Dispute to mediation, UBC and Licensee will jointly appoint an impartial, independent mediator with (to the extent available) expertise in the research and development of pharmaceutical products and in licensing agreements regarding such activities (the "**Mediator**") within 15 days of the Licensee's election. On appointment of Mediator the following rules and procedures will govern the conduct of the parties and the Mediator before and during the mediation of a Dispute:

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- (a) within 15 days of the appointment of the Mediator, each party will provide to the Mediator and to the other party a written summary of its position and copies of all documents on which it intends to rely. On receiving a party's summary and documents, the other party then has 15 days to submit to the other party and the Mediator a summary of such other party's position in response to the party's position;
- (b) after each of the Licensee and UBC has provided its summary and documents and response under Article 11.6(a), but not more than 60 days from the appointment of the Mediator, the parties agree to meet in the presence of the Mediator with a view to resolving the Dispute. The role of the Mediator will be to assist in negotiating a resolution of a Dispute and will not make a binding decision without the parties' prior written agreement. Each party will use good faith, diligent efforts to seek to agree to a resolution of the Dispute that is mutually satisfactory and facilitates the diligent and profitable development and commercialization of the Licensed Patents, Technology, Products and Licensee Owned Improvement Products by or on behalf of Licensee;
- (c) the mediation of a Dispute may be terminated by either party, by giving notice to the other party:
 - (i) if the other party fails to comply with its obligations under Article 11.6; or
 - (ii) if the parties cannot agree on a resolution of the Dispute within 60 days from the appointment of the Mediator;
- (d) any information or documents disclosed by either party under this Article 11.6 must be kept confidential and must not be used except to attempt to resolve the Dispute in the context of the mediation; and
- (e) each party must bear its own costs of complying with Article 11.6 and the parties must bear equally the costs of any Mediator engaged.

11.7 If the parties cannot agree on the resolution of the Dispute within 60 days from the appointment of the Mediator, or if the mediation of the Dispute has been terminated under Article 11.6(c), then the Licensee will (counting from the end of the 60 day period) have a further 30 days to remedy the material breach in accordance with Article 18.3(a) (if such breach in fact has occurred). If the Licensee fails to remedy the breach (if such material breach in fact has occurred) within such 30 day period then UBC may terminate this Agreement, provided that it is understood and agreed if Licensee disputes that such material breach has occurred, no such termination shall occur or be permitted unless and until it is determined in a final judgment (which is no longer subject to any appeal) that a material breach occurred and has not been cured by Licensee.

12.0 ACCOUNTING RECORDS & REPORTS

12.1 The Licensee will maintain at its principal place of business, or another place as may be most convenient, separate accounts and records of all Revenues, Sublicensing Fees, Sublicense Agreements and all business done in connection with the Patents, Improvement Patents, Technology or any Improvements. The accounts and records will be in sufficient detail to enable proper returns to be made under this Agreement and the Licensee will cause its Sublicensees to keep and deliver to the Licensee similar accounts and records.

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12.2 The Licensee will complete and deliver to UBC:

- (a) within 60 days of each and every Royalty Due Date, a completed Payment Report in the form attached as Schedule “D”, (or an amended form as required by UBC from time to time) together with the royalty payable under this Agreement. A separate Payment Report shall be prepared and delivered for each Sublicensee and Sublicense Agreement, including an accounting statement setting out in detail how the amount of Revenue received by such Sublicensee was determined and identifying each Sublicensee and the location of the business of each Sublicensee. The first Payment Report will be submitted within 60 days of the first Royalty Due Date after the receipt of the first Revenue, and thereafter a Payment Report shall be delivered every three months regardless of whether any Revenue was received in the preceding period; and,
- (b) on or before December 1st of each year during the Term, starting on December 1, 2007 an Annual Report in the form attached as Schedule “D” (or an amended form as required by UBC from time to time).

12.3 The calculation of royalties will be carried out in accordance with generally accepted accounting principles in the United States, or the standards and principles adopted by the U.S. Financial Accounting Standards Board applied on a consistent basis.

12.4 The Licensee will retain the accounts and records referred to in Article 12.1 for at least 6 years from when they were made and will permit a certified public accountant from a nationally-recognized accounting firm selected by UBC, to inspect, at UBC’s expense, the accounts and records during the Licensee’s normal business hours. The Licensee will provide to accountant access to all such accounts and records as necessary to verify the accounts and records (including the accounts and records pertaining to Revenue received by any Sublicensee(s)) and will allow copies to be made of the accounts, records and agreements. If an inspection of the Licensee or Sublicensee’s records by such accountant shows an underreporting or underpayment by the Licensee of any amount to UBC, by more than five percent (5%) for any 12 month period, then the Licensee will reimburse UBC for the cost of the inspection as well as pay to UBC any amount found due (including any interest) within 30 days of notice by UBC to the Licensee. If such inspection shows an overpayment by Licensee, Licensee may credit such overpayment against any other amounts owed to UBC, *provided that* if there are no more payments owed then UBC shall reimburse Licensee for the amount of such overpayment.

12.5 Any inspection under Article 12.4 shall be subject to a confidentiality obligation under which the inspecting accountant shall be under a confidentiality agreement to ensure that all information provided to such Agreement under such Article remains confidential and is treated as confidential by such accountant provided that such accountant may disclose to UBC whether the royalty payments by Licensee are accurate including all documentation supporting the accountant’s determination, and any extent of any underpayment or overpayment.

13.0 INSURANCE

13.1 During the Term, and for a period of three years thereafter, the Licensee will procure and maintain insurance (including public liability and commercial general liability insurance and insurance covering product liability), as would be acquired by a reasonable and prudent businessperson carrying on a similar line of business at a similar stage of development,

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such insurance being at a minimum sufficient to cover Licensee’s indemnification obligations under Section 9.1.

13.2 Without limiting Article 13.1, one month before the start of any Human Clinical Trials:

the Licensee will give notice to UBC of the terms and amount of the product liability, clinical trials, public liability, and commercial general liability insurance and such other types of insurance which it has placed. This insurance will:

- (a) be placed with a reputable and financially secure insurance carrier;
- (b) include UBC, its Board of Governors, faculty, officers, employees, students and agents as additional insureds;
- (c) provide coverage regarding all activities under this Agreement;
- (d) include a waiver of subrogation against UBC, and a severability of interest and cross-liability clauses; and
- (e) provide that the policy cannot be cancelled or materially altered except on at least 30 days’ prior notice to UBC.

13.3 UBC may from time to time request reasonable amendments to the terms or the amount of coverage contained in the Licensee’s insurance policy, and Licensee will use reasonable efforts to accommodate such reasonable requests. The Licensee will provide to UBC for its approval certificates of insurance evidencing the coverage seven days before the earlier of any Human Clinical Trials. The Licensee will not:

- (a) start any Human Clinical Trials, or
- (b) sell any Product or Licensee Owned Improvement Products

at any time unless, a certificate of insurance has been provided and approved by UBC, and the insurance outlined in Article 13.2 is in effect.

13.4 The Licensee will also require each Sublicensee to procure and maintain:

- (a) public liability and commercial general liability insurance and such other types of insurance as would be acquired by a reasonable and prudent businessperson carrying on a similar line of business; and
- (b) in any event, one month before the start of any Human Clinical Trials by the Sublicensee, product liability, clinical trials, public liability and commercial general liability insurance in reasonable amounts, with a reputable and financially secure insurance carrier.

The Licensee will ensure that all Sublicensees’ policies of insurance include UBC, its Board of Governors, faculty, officers, employees, students and agents as additional insureds.

14.0 ASSIGNMENT & CHANGE OF CONTROL

14.1 The Licensee will not assign or transfer this Agreement or any of its obligations under this Agreement without the prior written consent of UBC, such consent not to be

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unreasonably withheld or delayed, provided that Licensee may assign this Agreement without such consent to its Affiliate Company or to its successor in interest in connection with the merger, acquisition or sale of all or substantially all of Licensee's assets, so long as such assignee provides to UBC in writing its agreement to undertake and perform all of Licensee's obligations under this Agreement as the assignee of Licensee entire interests in the Agreement.

14.2 UBC will have the right to assign its rights, duties and obligations under this Agreement to a company of which it is the sole shareholder, or a society which it has incorporated or which has purposes which are consistent with the objectives of UBC. If UBC makes such an assignment, [✱], provided that UBC assigns to such company or society the entire right, title and interest in and to all the Licensed Patents, Technology, UBC Improvements and any Assigned Licensee Improvements and the company or society, as the case may be, signs a written agreement which provides that the company or society assumes all obligations or covenants from UBC and that the Licensee retains all rights granted to the Licensee under this Agreement.

15.0 GOVERNING LAW

15.1 This Agreement is governed by, and will be construed in accordance with, the laws of the Province of British Columbia and the federal laws of Canada, without regard to any conflicts of law rules or principles that would require application of different law. All parties agree that by executing this Agreement they have attorned to the jurisdiction of the Supreme Court of British Columbia.

16.0 NOTICES

16.1 All reports and notices or other documents that a party is required or may want to deliver to any other party will be delivered:

- (a) in writing; and
- (b) either by personal delivery or by registered or certified mail at the address for the receiving party set out in Article 16.2 or as varied by any notice.

Any notice personally delivered is deemed to have been received at the time of delivery. Any notice mailed in accordance with this Article 16.1 is deemed to have been received at the end of the fifth day after it is posted.

16.2 The address for delivery of notices and instructions for making payments to UBC are set out in the attached Schedule "F". The address for delivery of notices to the Licensee is set out below:

Nicholas N. Vahanian, Chief Medical and Operations Officer
NewLink Genetics Corporation
Iowa State University Research Park
2901 South Loop Drive, Suite # 3900
Ames, Iowa 50010

Telephone: 515-296-5555
Fax: 515-296-5557

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17.0 TERM

17.1 The term (the "Term") of this Agreement starts on the Effective Date and ends on:

- (a) the day that is exactly 20 years later; or
- (b) the expiry of the last Licensed Patent,

whichever is last to occur, unless terminated earlier under Article 18.

18.0 TERMINATION OF AGREEMENT

18.1 This Agreement automatically and immediately terminates without notice to the Licensee if any bankruptcy proceeding under the bankruptcy laws of the United States is started by or against the Licensee.

18.2 UBC may, at its option, immediately terminate this Agreement by giving notice to the Licensee if one or more of the following occurs:

- (a) the Licensee makes or suffers the appointment of a receiver or a receiver manager with control of all or substantially all of Licensee's assets; the termination of all or substantially all of the Licensee's employees; or the Licensee ceasing or initiating a program intending to cease carrying on business;

- (b) any resolution is passed or order made or other steps taken for the winding up, liquidation or other termination of the existence of the Licensee;
- (c) if any Sublicensee is in material breach of its Sublicense Agreement (and such breach is causing harm to UBC), and the Licensee fails on receiving notice from UBC to take all commercially reasonable steps under the terms of the Sublicense Agreement to cause such Sublicensee to cure such breach; and
- (d) if the Licensee, or any Affiliated Company, is in material breach of, any other agreement between the Licensee or such Affiliated Company and UBC and the material breach has not been cured within the time provided for the curing of such breach under the terms of the other agreement.

18.3 Other than as set out in Articles 18.1 and 18.2, a party may terminate this Agreement for any material breach by the other party of its material obligation under this Agreement *provided that* such material breach is not cured by the breaching party after such party provides the following notice to the party in breach:

- (a) 45 days notice (which notice provides particulars of the specific breach) in the case of any breach which can reasonably be remedied within 45 days of the delivery of such notice; or
- (b) if the breach cannot be remedied within 45 days and the breach is not remedied within such further period as may be reasonably necessary, or within 90 days after receipt of notice (which notice provides particulars of the specific breach), whichever is sooner.

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18.4 If this Agreement is terminated under Article 18.1 to 18.3, the Licensee will make all outstanding royalty and other payments to UBC under Articles 5 and 6 that have accrued and are owed prior to the date of termination, and UBC may proceed to enforce payment of all outstanding royalties or other monies owed to UBC that have accrued and are owed prior to the date of termination, and each party may exercise any or all of the rights and remedies available under this Agreement or otherwise available by law or in equity, successively or concurrently, at the option of such party. Within five days of the Effective Termination Date, the Licensee will deliver to UBC all Licensed Patents, Technology, UBC Improvements and any Assigned Licensee Improvements in its possession or control and has no further right of any nature at all in the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements.

18.5 The Licensee and all Sublicensees will cease to use the Licensed Patents, Technology, UBC Improvements or any Assigned Licensee Improvements in any manner at all or to manufacture or sell the Products within five days from the Effective Termination Date. The Licensee will then deliver to UBC an accounting within 30 days from the Effective Termination Date. The accounting will specify the inventory or stock of Products manufactured and remaining unsold on the Effective Termination Date. Without limitation, if this Agreement is terminated under Article 18.1, no Products will be sold without the prior written consent of UBC. The Licensee will continue to make royalty and other payments to UBC in the same manner specified in Articles 5 and 6 on all Products that are sold in accordance with this Article 18.5, notwithstanding anything contained in, or any exercise of rights by UBC, under Article 18.4.

18.6 Notwithstanding the termination or expiration of this Agreement, Article 12 remains in full force and effect until 6 years after:

- (a) all payments of royalty required to be made by the Licensee to UBC under this Agreement have been made by the Licensee to UBC; and
- (b) any other claim or claims of any nature or kind at all made by UBC against the Licensee under this Agreement has been settled or resolved in court.

19.0 MISCELLANEOUS COVENANTS OF LICENSEE

19.1 The Licensee represents and warrants to UBC that the Licensee is a corporation duly organized, existing and in good standing under the laws of Iowa and has the power, authority and capacity to enter into this Agreement and to carry out the transactions contemplated by this Agreement, all of which have been duly and validly authorized by all requisite corporate proceedings.

19.2 The Licensee will comply with all applicable laws, regulations and ordinances, whether Federal, State, Provincial, County, Municipal or otherwise, with respect to the Patents, Improvement Patents, Technology and any Improvements and this Agreement.

19.3 The royalties specified in this Agreement are exclusive of taxes. If UBC is required to collect a tax to be paid by the Licensee or any of its Sublicensees, the Licensee will pay the tax to UBC on demand.

19.4 The Licensee will pay interest on all amounts due and owing to UBC under this Agreement but not paid by the Licensee on the due date, at the rate of 12.68% per annum, calculated annually not in advance. The interest accrues on the balance of unpaid amounts from time to time outstanding, from the date on which portions of the amounts become due and owing until payment in full.

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20.0 MANAGEMENT OF CONFLICTS OF INTEREST

20.1 The Licensee acknowledges that it is aware of UBC's Conflict of Interest Policy #97, Patent and Licensing Policy #88 and Research Policy #87 (<http://www.policy.ubc.ca/>), and that UBC may amend these policies or introduce new policies from time to time.

20.2 Subject to Article 20.3 the Licensee and UBC agree, that:

- (a) the facilities and research programs of the Licensee will be conducted independently of all UBC facilities, faculty, students or staff, and in particular, independently of and from the Investigator and the laboratory facilities made available to the Investigator by reason of the

Investigator's employment at UBC;

- (b) no students, post-doctoral fellows or other UBC staff will participate or be involved in the Licensee's research, projects or utilize its facilities; and
- (c) any disclosures of inventions made by the Investigator to the Licensee will be immediately forwarded by the Licensee to UBC.

20.3 The Licensee and UBC may, from time to time, enter into written agreements to permit activities which would otherwise be prohibited by Article 20.2.

21.0 GENERAL

21.1 Nothing contained in this Agreement is to be deemed or construed to create between the parties a partnership or joint venture. No party has the authority to act on behalf of any other party, or to commit any other party in any manner at all or cause any other party's name to be used in any way not specifically authorized by this Agreement.

21.2 Subject to the limitations in this Agreement, this Agreement operates for the benefit of and is binding on the parties and their respective successors and permitted assigns.

21.3 No condoning, excusing or overlooking by any party of any default, breach or non-observance by the other party at any time or times regarding any terms of this Agreement operates as a waiver of that party's rights under this Agreement. A waiver of any term, or right under, this Agreement will be in writing signed by the party entitled to the benefit of that term or right, and is effective only to the extent set out in the written waiver.

21.4 No exercise of a specific right or remedy by any party precludes it from or prejudices it in exercising another right or pursuing another remedy or maintaining an action to which it may otherwise be entitled either at law or in equity.

21.5 All terms which require performance by the parties after the expiry or termination of this Agreement, will remain in force despite this Agreement's expiry or termination for any reason.

21.6 Part or all of any Article that is indefinite, invalid, illegal or otherwise voidable or unenforceable may be severed and the balance of this Agreement will continue in full force and effect.

21.7 The Licensee acknowledges that UBC has represented to Licensee that the law firm of Richards Buell Sutton LLP has acted solely for UBC in connection with this Agreement and that all other parties have been advised to seek independent legal advice.

21.8 This Agreement sets out the entire understanding between the parties and no changes are binding unless signed in writing by the parties to this Agreement.

21.9 Time is of the essence of this Agreement.

21.10 Unless the contrary intention appears, the singular includes the plural and vice versa and words importing a gender include other genders.

SIGNED BY THE PARTIES AS AN AGREEMENT on the 27 day of February, 2007, but effective as of the Effective Date.

SIGNED FOR AND ON BEHALF of
THE UNIVERSITY OF BRITISH COLUMBIA
by its authorized signatories:

/s/ Barbara M. Campbell
 Authorized Signatory Barbara M. Campbell
 Associate Director
 University — Industry Liaison Office

Authorized Signatory

SIGNED FOR AND ON BEHALF of
NEWLINK GENETICS CORPORATION
by its authorized signatories:

/s/ Nicholas N. Vahanian
 Authorized Signatory

 Nicholas N. Vahanian, Chief Medical & Operations Officer
 Please print Name and Title of Signatory

Authorized Signatory

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SCHEDULE "A"

DESCRIPTION OF "PATENTS" AND "TECHNOLOGY"

UBC File #	Inventor(s)	Description	Patent #
[*]	[*]	Indoleamine 2,3-Dioxygenase [*]	[*] Indoleamine 2,3-Dioxygenase [*]

SCHEDULE "B"

NOTICE OF EXERCISE OF OPTION

TO: THE UNIVERSITY OF BRITISH COLUMBIA

NEWLINK GENETICS CORPORATION hereby exercises the Option provided for in the License Agreement dated _____, 2006 (the "License Agreement") to license the following New Technology:

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[IDENTIFY THE NEW TECHNOLOGY IN RESPECT OF WHICH NEWLINK IS INTENDING TO EXERCISE ITS OPTION]

upon the terms and conditions contained in Articles 2.4 et seq. of the License Agreement between NewLink Genetics Corporation and The University of British Columbia dated _____, 2006.

Attached hereto as is a Business Plan prepared in compliance with the License Agreement.

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SCHEDULE "C"

MANDATORY SUBLICENSING PROVISIONS

- The Sublicense Agreement shall be personal to the Sublicensee, and shall not contain the right to grant any further sub-sublicenses and shall not be assignable without the prior written consent of UBC, such consent not to be unreasonably withheld], except that the Sublicensee may assign such Sublicense Agreement without such consent to its successor in interest pursuant to the acquisition or merger of or sale of all or substantially all of the assets of such Sublicensee. In addition, except as expressly provided herein, the Sublicensee shall not transfer or otherwise dispose of any or all of the rights, duties or obligations granted to it under the Sublicense Agreement (but provided that Sublicensee may use third party contractors to perform routine functions on its behalf in the development or commercialization of Products or Licensee Owned Improvement Products).
- The Sublicensee shall acknowledge all ownership of the sublicensed Technology, Improvements, and Licensed Patents as set out in Article 2.1 of the License Agreement (in this Schedule "C", the "License Agreement").
- The Sublicensee shall acknowledge that UBC has the right to use the Technology, Improvements (other than Licensee Owned Improvements), and Licensed Patents without charge in any manner whatsoever for research, scholarly publication, educational and other non-commercial uses in all fields of use in accordance with the terms of the License Agreement.
- Publication and Confidentiality
 - The Sublicensee shall keep and use all of UBC's Confidential Information in confidence and will not, without UBC's prior written consent, disclose any of UBC's Confidential Information to any person or entity, except those of the Sublicensee's directors, officers, employees, technical consultants and professional advisors who require said Confidential Information in connection with the Sublicensee performing its obligations or exercising its rights under the Sublicense Agreement. The Sublicensee shall also covenant and agree that it will initiate and maintain an appropriate internal program limiting the internal distribution of UBC's Confidential Information to only those directors, officers, employees, technical consultants and professional advisors who require said Confidential Information in connection with the Sublicensee performing its obligations or exercising its rights under the Sublicense Agreement and who are under obligations of confidentiality consistent to those of the License Agreement.

(b) The Sublicensee shall acknowledge that UBC shall not be restricted from presenting at symposia, national or regional professional meetings, or from publishing in journals or other publications, accounts of its research relating to the Technology and any Improvements (other than Licensee Owned Improvements) in accordance with the terms of the License Agreement.

5. The Sublicensee shall agree not to use UBC's name, trade-marks, service marks, logos, insignia, seal, or designs without the prior written consent of UBC, such consent not to be unreasonably withheld.
6. The Sublicensee shall procure and maintain insurance in accordance with Article 13.4 of the License Agreement.
7. The Sublicensee shall acknowledge and agree that UBC makes no representations, conditions or warranties, either express or implied, with respect to the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products. Without limiting the generality of the foregoing, the Sublicensee shall acknowledge that:
 - (i) UBC specifically disclaims any express or implied warranty, condition or representation as to title to the Licensed Patents, Technology or any Improvements or that anything made, used, sold or otherwise disposed of under the license granted in the Sublicense Agreement will not infringe the patents, copyrights, trade-marks, industrial designs or other intellectual property rights of any third parties, including any patents, copyrights, trade-marks, industrial design or other intellectual property rights owned, in whole or in part, by UBC, or licensed by UBC to any third parties;
 - (ii) UBC makes no express or implied warranty, condition or representation that the Licensee or Sublicensee has, or will have the freedom to operate or practice the Licensed Patents, Technology or any Improvements, or the freedom to make, have made, use, sell or otherwise dispose of Products or Licensee Owned Improvement Products; or
 - (iii) UBC is under no obligation to bring, prosecute or defend actions or suits against third parties for infringement of patents, copyrights, trade-marks, industrial designs or other intellectual property or contractual rights.
8. The Sublicensee shall acknowledge and agree that UBC will not be liable for any loss, whether direct, consequential, incidental or special, which the Sublicensee or any other third parties suffer, arising from any defect, error or fault of the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products, or their failure to perform, even if UBC is aware of the possibility of the defect, error, fault or failure. The Sublicensee will also acknowledge that it has been advised to undertake its own due diligence regarding the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products, and that UBC is under no obligation to bring, prosecute or defend actions or suits against third parties for infringement of patents, copyrights, trade-marks, industrial designs or other intellectual property or contractual rights in relation to the Licensed Patents, Technology, Improvements, Products or Licensee Owned Improvement Products.
9. The Sublicensee shall indemnify holds harmless and defends UBC and its Board of Governors, officers, employees, faculty, students, invitees and agents against any and all third party claims against such indemnitees (including all associated legal fees and disbursements actually incurred) arising out of the exercise by Sublicensee of any rights under the Sublicense Agreement, including without limitation against any damages or losses, consequential or otherwise, resulting from such third party claims based in any manner at all from or out of the use of the Licensed Patents, Technology, Improvements,

Products or Licensee Owned Improvement Products by the Sublicensee or its customers or end-users.

10. The Sublicensee shall agree to limit its claims against UBC, whether under the express or implied terms of the Sublicense Agreement or the License Agreement, in tort (including negligence) or at common law, for any loss or damage suffered by the Sublicensee, whether direct, indirect or special, or any other similar damage that may arise or does arise from any actions or inactions, defaults or breaches by UBC, its Board of Governors, officers, employees, faculty, students or agents, to [*].
11. The Sublicensee shall also acknowledge and agree that UBC will not be liable for consequential or incidental damages, including any consequential or incidental damages arising from any breach or breaches of the Sublicense Agreement or the License Agreement.
12. The Sublicense shall include termination provisions such that the Sublicense Agreement shall terminate:
 - (a) upon termination of the License Agreement between UBC and the Licensee;
 - (b) automatically if any proceeding under any applicable bankruptcy or insolvency laws, or any other legislation of similar purport, are started by or against the Sublicensee;
 - (c) if the Sublicensee ceases to carry on business, or any resolution is passed or order made or other steps taken for the winding up, liquidation or other termination of the existence of the Sublicensee;
 - (d) if the Sublicensee is in material default under any term of the Sublicense Agreement and:
 - (i) if such default is reasonably curable within thirty (30) days after receipt of notice of such default and such default is not cured within thirty (30) days after receipt of written notice thereof, or
 - (ii) if such default is not reasonably curable within thirty (30) days after receipt of written notice thereof, and such default is not cured within such further reasonable period of time as may be necessary for the curing of such default;
 - (e) if the Sublicensee fails to procure or maintain insurance as required under the Sublicense Agreement.

13. The Sublicensee shall cease to use the Licensed Patents, Technology, Improvements in any manner whatsoever and shall cease to manufacture Products within five days from the effective date of termination of the Sublicense Agreement. If the Sublicense Agreement is terminated due to a default of the Licensee, then the Sublicensee will be entitled to dispose of all previously made Products, but no more, and the terms of the Sublicense Agreement shall continue to be applicable during the period that the Sublicensee carries out such disposition.

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14. The Sublicensee shall maintain separate accounts and records of all business done in connection with the Licensed Patents, Technology, Improvements, Products and Licensee Owned Improvement Products. These accounts and records will be in sufficient detail to enable proper returns to be made by the Licensee to UBC under the License Agreement.

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SCHEDULE "D"

Payment Report for the Period dd/mm/yy to dd/mm/yy

Instructions for Completing this Report

Please fill out each section in full, identifying in the Royalty Summary Table the unit sales and geographical sales areas. If the licence with UBC involves several product lines, please prepare a separate Summary Table for each product line. For licences involving one or more sublicenses, please prepare an additional report for the Revenue received by each Sublicensee.

PLEASE NOTE: An interest rate of [*] per annum, calculated annually not in advance will be assessed against all payments made after the due date.

Licensee (or sublicensee) NewLink Genetics Corporation Agreement # _____ UBC ID # _____

UBC Technology

Report Type (check one and complete as appropriate)

- Single Product Line Product Line Trade Name _____
- Multiple Products Page _____ Of _____ Product Line Trade Name _____
- Sublicense Report Page _____ Of _____

Payments this Quarter (please complete separate tables for multiple product lines) Royalties on Product Sales

Country	Units Sold	Unit Price (domestic currency)	Gross sales	Less Allowances *	Net Sales	Royalty Rate	Conversion Rate (to Canadian \$)	Period Royalty Amount (Canadian \$)	
								This yr	Last yr
Canada									
US									
Europe (specify countries)									
Other									
Total Product Royalties									

Additional Payments (complete all that apply)

Minimum Royalty Fee	<input type="radio"/>	Amount		
Milestone Payment	<input type="radio"/>	Amount		
Annual Licence Maintenance Fee	<input type="radio"/>	Amount		
	<input type="radio"/>		This Year	Last Year
	<input type="radio"/>	Total Payments for Period	_____	_____

*Please indicate the reasons for returns or other allowances, if significant. Please note any unusual occurrences that affected royalty amounts during the period.

Prepared by _____ Date Dd/mm/yy Phone _____

I _____ (print name), _____ (title) hereby certify the foregoing information as true and correct.

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SCHEDULE "E"**UBC License Agreement Annual Report**

The information to be completed below shall constitute the annual report required pursuant to the UBC License Agreement. Any information or documents provided by the Licensee in this report shall not be interpreted as affecting the express rights and obligations of the Licensee contained in the License Agreement. This report is in addition to the Payment Report to accompany each royalty payment.

Date of Report: Person Preparing This Report:

Name of Licensee: UBC File Number:

Jurisdiction of Corporation: Head Office
Address:

Contact Person for Company

Licensed Technology:

Telephone Number: E-mail Address:

1. Please provide a brief report on the status of development of the UBC Technology, progress on creating a commercial Product or Licensee Owned Improvement Product, or subsequent marketing of the Product or Licensee Owned Improvement Product as appropriate.
2. Has the Licensee filed any patent applications for modifications or improvements relating to the original UBC Technology?
3. Has the Licensee become aware of any potential 3rd party infringing on the UBC patents or related intellectual property? If so please provide details and outline what the Licensee is doing about this.
4. Has the Licensee met any milestone or performance objectives in the past year as set forth in the license agreement? Please outline the past year's accomplishments.
5. Does the Licensee expect to meet any milestone or performance objective in the coming year as set forth in the license agreement? If so please provide details.
6. If applicable, has the Licensee granted sublicenses to 3rd parties and if so have copies of the sublicense agreement been provided to the Technology Manager at UBC? If not, please enclose a copy of each sublicense agreement.

7. Has the licensee made any sales in the last 12 months? Yes o No o
If so please submit a completed Royalty Payment Report.

- a) Date of sales of Products or Licensee Owned Improvement Products utilizing the Technology;
- b) Date of any clinical trials.

8. Does your company have public liability insurance?

9. Please provide the Licensee's estimate or projection of gross sales revenue for products based on the UBC Technology for the next 12 months by licensee and any sub-licensee.

10. Is there any other information relating to this License that you think we should be aware of? Please summarize them below or contact us directly.

Prepared by

Date Dd/mm/yy

Phone

I (print name),

(title) hereby certify the foregoing information as true and correct.

Once completed, please submit this report to:

**Managing Director c/o Licensing Compliance Officer
University — Industry Liaison Office
#103 — 6190 Agronomy Road,
Vancouver, BC
V6T 1Z3**

SCHEDULE “F”

ADDRESS FOR NOTICES & PAYMENT INSTRUCTIONS

1. The address for delivery of notices to UBC is:

The Director
University — Industry Liaison Office
University of British Columbia
#103 — 6190 Agronomy Road
Vancouver, British Columbia
V6T 1Z3
Telephone: (604) 822-8580
Fax: (604) 822-8589

2. Payment of all amounts due to UBC under the terms of this license may be made as follows:

- a) by cheque made payable to “The University of British Columbia” delivered to UBC at the above address; or
- b) by wire transfer in accordance with the instructions set out below:

Note: Please ensure ALL of the information is provided for efficient receipt of wire payments:

For CAD \$ Deposits via wire
(General):

Pay Via: [*]
Pay to: [*]
Bank Address:
[*]

For Account: [*]
Beneficiary: [*]
Reference: [*]
Phone: [*]
Re: [*]
For **Royalties** [*]
For **Patent Fees** [*]
Dept Name: [*]

For USD Deposits via wire:

Pay Via: [*]
Pay to: [*]
Bank Address:
[*]

For Account: [*]
Beneficiary: [*]
Reference: [*]
Phone: [*]
Re: [*]
For **Royalties** [*]
For **Patent Fees** [*]
Dept Name: [*]
Cover/Reimbursement: [*]
Receiving Bank: [*]
Beneficiary Bank: [*]

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

LICENSE AGREEMENT

BETWEEN

NEWLINK GENETICS

AND

DREXEL UNIVERSITY

EFFECTIVE AS OF

OCTOBER 13th, 2004

LICENSE AGREEMENT

This License Agreement (this "Agreement") is made on October, 13th, 2004, by and between Drexel University, a Pennsylvania nonprofit corporation, with offices located at 3201 Arch Street, Suite 100, Philadelphia, Pennsylvania 19104 ("DREXEL"), and NewLink Genetics Corporation, a Delaware for-profit corporation ("LICENSEE"), with its principal offices at Iowa State University Research Park, 2901 South Loop Drive, Suite 3900. This Agreement is effective as of October, 13th, 2004 (the "Effective Date").

BACKGROUND

1. DREXEL owns certain intellectual property developed by Dr. Uri Galili of DREXEL relating to Compositions and methods for vaccines comprising .alpha.-galactosyl epitopes, as described more fully in Attachment 1;
2. DREXEL owns the United States letters patent and/or applications therefore listed in Attachment 1 to this Agreement relating to the intellectual property developed by Drs. Uri Galili and Patricia M. Repik as described above;
3. LICENSEE desires to obtain the exclusive right and license to use and exploit the intellectual property developed by Drs. Uri Galili and Patricia M. Repik described in Attachment 1.
4. DREXEL has determined that the exploitation of the intellectual property developed by Drs. Uri Galili and Patricia M. Repik is in the best interest of DREXEL and is consistent with its educational and research missions and goals.

NOW, THEREFORE, in consideration of the promises and covenants contained in this Agreement and intending to be legally bound, the parties agree as follows:

ARTICLE 1

DEFINITIONS

1.1. "Affiliate" means any legal entity directly or indirectly controlling, controlled by or under common control with LICENSEE that has executed (a) this Agreement or (b) a written joiner agreement, in a form satisfactory to DREXEL, agreeing to be bound by all of the terms and conditions of this Agreement as if such Affiliate were an original party to this Agreement. For purposes of this Agreement, "control" means the direct or indirect ownership of more than fifty percent (50%) of the outstanding voting securities of a legal entity, or the right to receive more than fifty percent (50%) of the profits or earnings of a legal entity, or the right to control the policy decisions of a legal entity.

1.2. "Agreement" shall have the meaning given in the first paragraph hereof.

1.3. "Calendar Quarter" means each three-month period, or any portion thereof, beginning on January 1, April 1, July 1 and October 1.

1.4. "Confidential Information" means and includes all technical information, inventions, developments, discoveries, software, know-how, methods, techniques, formulae, data, processes and other proprietary ideas, whether or not patentable or copyrightable, regardless whether DREXEL identifies such information as confidential or proprietary at the time it is delivered or communicated to LICENSEE.

1.5. "Default" shall have the meaning given in Section 5.3

1.6. "Development Plan" means a plan for the development and/or marketing of the Patent Rights and Technical Information that demonstrates LICENSEE's capability to bring the Patent Rights and Technical Information to practical application and is more fully set forth in Attachment 2.

1.7. "Effective Date" shall have the meaning given in the preamble hereof.

1.8. "Fair Market Value" means the cash consideration that LICENSEE or its Sublicensee would realize from an unaffiliated, unrelated buyer in an arm's length sale of an identical item sold in the same quantity and at the same time and place of the transaction.

1.9. "Indemnified Party" shall have the meaning given in Section 8.2.

1.10. "Field of Use" means Compositions and methods for vaccines comprising .alpha.-galactosyl epitopes for diagnosis and treatment of cancer, viral and other infectious diseases.

1.11. "Liability" and "Liabilities" shall have the meaning given in Section 8.2.

1.12. "License" shall mean the license granted by DREXEL to LICENSEE pursuant to Section 2.1.

1.13. "Licensed Product(s)" means products that are made, made for, used or sold by LICENSEE or any Sublicensees and that: (a) in the absence of this Agreement would infringe at least one claim of Patent Rights; (b) use a process or machine covered by a claim of Patent Rights; or (c) use, at least in part, any Technical Information.

1.14. "LICENSEE" shall have the meaning given in the first paragraph of this Agreement.

1.15. "Net Sales" means the consideration or Fair Market Value attributable to the Sale of any Licensed Product(s), less qualifying costs directly attributable to such Sale and actually

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identified on the invoice and borne by LICENSEE or its Sublicensee. Such qualifying costs shall be limited to the following:

1.15.1 Discounts, in amounts customary in the trade, for quantity purchases, for prompt payments and for wholesalers and distributors;

1.15.2 Credits or refunds, not exceeding the original invoice amount, for claims or returns;

1.15.3 Prepaid outbound transportation expenses and transportation insurance premiums; and

1.15.4 Sales and use taxes and other fees imposed by a governmental agency.

1.16. "Patent Rights" means all patent rights represented by or issuing from the United States or foreign patents listed in Attachment 1 or the patents issuing from the United States or foreign patent applications listed in Attachment 1, and their foreign counterparts and extensions, including continuation, divisional and re-issue applications and continuation-in-part applications.

1.17. "Sale" means any bona fide transaction for which consideration is received or expected for the sale, use, lease, transfer or other disposition of Licensed Product(s) excluding any sale, use, lease, transfer or other disposition to a Sublicensee unless such Sublicensee is an end user. A Sale of Licensed Product(s) shall be deemed completed at the time LICENSEE or its Sublicensee invoices, ships, or receives payment for such Licensed Product(s), whichever occurs first. Sale shall not include the non-compensated use, transfer or other disposition of Licensed Product for research, development or clinical trial purposes.

1.18. "Sell Off Right" shall have the meaning given in Section 5.8.

1.19. "Sublicense" shall have the meaning given in Section 2.4.1.

1.20. "Sublicense Assignment" shall have the meaning given in Section 2.4.2.

1.21. "Sublicensee" shall have the meaning given in Section 2.4.1.

1.22. "Technical Information" means all the information contained in the patents and the patent applications listed in Attachment 1 (other than the information referenced from patents and publications cited in such patents and patent applications) and any other technical information disclosed or referenced in Attachment 1, in each case that is necessary or useful for practicing the invention(s) covered by Patent Rights.

1.23. "Transaction Documents" means this Agreement.

1.24. "Trigger Event" means any of the following:

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1.24.1 If LICENSEE becomes insolvent, bankrupt or generally fails to pay its debts as such debts become due; is adjudicated insolvent or bankrupt; admits in writing its inability to pay its debts; or shall suffer a custodian, receiver or trustee for it or substantially all of its property to be appointed and, if appointed without its consent, not be discharged within thirty (30) days; makes an Assignment for the benefit of creditors; or suffers proceedings under any law related to bankruptcy, insolvency, liquidation or the reorganization, readjustment or the release of debtors to be instituted against it and, if contested by it, not dismissed or stayed within ten (10) days;

1.24.2 If proceedings under any law related to bankruptcy, insolvency, liquidation, or the reorganization, readjustment or the release of debtors are instituted or commenced by LICENSEE;

1.24.3 If LICENSEE shall by any act or failure to act indicate its consent to, approval of or acquiescence in any of the proceedings described in Sections 1.24.1 or 1.24.2; or [NOTE: The bankruptcy of a Sublicensee or an Affiliate may have no effect whatsoever on NewLink's ability to perform its obligations under this Agreement. Only NewLink's own bankruptcy/non-performance is an appropriate termination trigger.]

1.24.4 If a Sublicensee or Affiliate experiences the circumstances described in 1.24.1, 1.24.2 or 1.24.3 and the LICENSEE fails to terminate the Sublicense or provide adequate assurances to DREXEL that LICENSEE will cover all royalty obligations that would arise under such Sublicensee.

ARTICLE 2

LICENSE GRANT

- 2.1 License Grant. DREXEL grants to LICENSEE and its Affiliates for the term of this Agreement an exclusive, world-wide license under the Patent Rights to make, have made, use, import, sell and offer for sale Licensed Product(s) in the Field of Use, except that to the extent that any Affiliate exercises any rights granted by DREXEL hereunder, LICENSEE remains primarily liable to DREXEL for the duties and obligations of any Affiliate hereunder, and any act or omission of an Affiliate would be deemed to be a breach by LICENSEE of this Agreement. DREXEL grants to LICENSEE only the qualified right to grant sublicenses as more fully described in Section 2.4. No other rights or licenses are granted.
- 2.2 Exclusivity. The License is exclusive, except that DREXEL may use and permit other nonprofit organizations to use the Patent Rights and the Technical Information for educational and non-commercial research purposes.
- 2.3 U.S. Government Rights. LICENSEE or its Affiliates acknowledge that pursuant to Public Laws 96-517, 97-256 and 98-620, codified at 35 U.S.C. 200-212, the United States

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government retains certain rights in intellectual property funded in whole or part under any contract, grant or similar agreement with a Federal agency. Pursuant to these laws, the government may impose certain requirements regarding such intellectual property, including but not limited to the requirement that products resulting from such intellectual property sold in the United States must be substantially manufactured in the United States. The License is expressly subject to all applicable United States government rights as provided in the above-mentioned laws and any regulations issued under those laws, as those laws or regulations may be amended from time to time.

- 2.4 Sublicense Conditions. The right to sublicense granted to LICENSEE under Section 2.1 is subject to the following conditions:
- 2.4.1 LICENSEE may sublicense the rights granted in this Agreement by written sublicense agreement in a form acceptable to DREXEL, which form shall (a) prohibit the sublicensee ("Sublicensee") from further sublicensing without DREXEL's prior consent and (b) require that the Sublicensee be subject to the terms and conditions of the license granted to LICENSEE under this Agreement (each, a "Sublicense").
- 2.4.2 Within thirty (30) days after LICENSEE enters into any Sublicense LICENSEE must deliver to DREXEL a complete copy of the Sublicense written in the English language (DREXEL's receipt of the Sublicense shall not constitute an approval of the Sublicense or a waiver of any of DREXEL's rights or LICENSEE's obligations under this Agreement).
- 2.4.3 In the event of a default by LICENSEE under Section 5.3 hereunder, all payments then or thereafter due to LICENSEE from each of its Sublicensees shall, upon notice from DREXEL to any such Sublicensee, become owed directly to DREXEL for the account of LICENSEE; provided that DREXEL shall remit to LICENSEE the amount by which such payments in the aggregate exceed the total amount owed by LICENSEE to DREXEL. If this Agreement is terminated, DREXEL has the right to accept as successors to LICENSEE such consent not to be unreasonably withheld or delayed, existing Sublicensees in good standing at the date of termination, provided that the Sublicensees consent in writing to be bound by all the terms and conditions of this Agreement.
- 2.4.4 Even if LICENSEE enters into Sublicenses, LICENSEE remains primarily liable to DREXEL for all of LICENSEE's duties and obligations contained in this Agreement. LICENSEE shall diligently enforce the terms and conditions of each Sublicense, and if any Sublicensee commits an act or omission that would be a breach of this Agreement if performed by LICENSEE, LICENSEE shall exercise all rights and remedies it has under the Sublicense.

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ARTICLE 3

FEES AND ROYALTIES

- 3.1 License Initiation Fee and Royalties.
- 3.1.1 In partial consideration of the License, LICENSEE shall pay to DREXEL on the Effective Date of this Agreement, a non-refundable license initiation fee of [*].
- 3.1.2 In partial consideration of the License, LICENSEE shall pay to DREXEL on the Effective Date of this Agreement, a non-refundable fee of [*] for past patent costs.
- 3.1.3 In further consideration of the exclusive License granted to LICENSEE, LICENSEE shall pay to DREXEL the below listed royalties based on the Net Sales of Licensed Products made, made for, used or sold by LICENSEE, its Affiliates and/or Sublicensees.

[*] of Net Sales for each Licensed Product that is a [*] on Sales in [*]*

[*] of Net Sales for each Licensed Product that is a [*] on Sales in [*]*

[*] of Net Sales for each Licensed Product that is an [*] on Sales in [*]*

*Reduced if combined with other technologies (defined in Stacking royalty below).

Stacking royalty
(if combined with other technologies)

[*] of Net Sales
for each Licensed Product that is an [*] on Sales in [*].

[*] of Net Sales for each Licensed Product that is an [*] on Sales in [*].

[*] of Net Sales for each Licensed Product that is an [*] on Sales in [*].

- 3.1.4 In further consideration of the exclusive License granted to LICENSEE, LICENSEE shall pay to DREXEL the following milestone payments:
- 3.1.4.1 Upon [*] for any Licensed Product, the sum of: [*] on each [*] for [*]. Capped at [*].
- 3.1.4.2 Upon [*] for any Licensed Product, the sum of: [*] on each [*] for the United States. Capped at [*].
- 3.1.4.3 Upon [*] for any Licensed Product, the sum of: [*] on each [*] for [*].
- 3.1.4.4 Upon [*] for any Licensed Product, the sum of: [*] on each [*] for the United States.
- 3.1.5 LICENSEE shall pay to DREXEL [*] of any Sublicense initiation fee or other such consideration paid by each Sublicensee of this Agreement, other than up front sums received: (i) for the purchase of an equity interest in LICENSEE at Fair Market Value;

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(ii) for research and development work performed by or for LICENSEE not to exceed Fair Market Value; or (iii) for purchase of a supply of Licensed Product at Fair Market Value. Any non-cash consideration received by the LICENSEE from such Sublicensees shall be valued at its Fair Market Value as of the date of receipt.

- 3.1.6 Net Sales of any Licensed Product shall not be subject to more than one assessment of the scheduled royalty; such assessment shall be the highest applicable royalty.
- 3.2 Diligence and Maintenance Fees.
- 3.2.1 LICENSEE shall use its commercially reasonable efforts to [*]. Notwithstanding the above, LICENSEE (a) [*] within 5 years of the Effective Date and/or (b) shall demonstrate on the 5th anniversary of the Effective Date and on each anniversary thereafter that LICENSEE has [*] to make [[*].
- 3.2.2 LICENSEE shall provide to DREXEL, on the Effective Date and on each anniversary thereafter, written progress reports, setting forth in such detail as DREXEL may reasonably request: (a) the progress of the development, evaluation, testing and commercialization of each Licensed Product; and (b) the LICENSEE'S strategic alliances with industry counterparts that, in the best judgment of the LICENSEE, represent effective and beneficial business relationships. LICENSEE shall also notify DREXEL in writing within thirty (30) days after the first commercial sale of each Licensed Product.
- 3.2.3 LICENSEE shall provide to DREXEL, at least as frequently as they are distributed to the Board of Directors and/or management of LICENSEE copies of: all Board and managerial reports that relate to the Technical Information, Patent Rights and Licensed Products.
- 3.2.4 LICENSEE shall pay to DREXEL a non-refundable annual license maintenance fee of [*] due and payable on the first anniversary of the Effective Date. Thereafter, the LICENSEE shall pay to DREXEL a non-refundable annual license maintenance

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fee of [*] due and payable on each anniversary of the Effective Date until the end of this Agreement.

- 3.3 Royalty Reports and Records.
- 3.3.1 Prior to the commencement of Sales of Licensed Products, LICENSEE shall deliver to DREXEL within forty-five days after the end of LICENSEE's fiscal year a statement signed by the Chief Financial Officer indicating that there have been no Sales of Licensed Product for such fiscal year. Once that Sales of Licensed Products are realized, LICENSEE shall deliver to DREXEL within forty-five (45) days after the end of each Calendar Quarter a written report, certified by the chief financial officer of LICENSEE, setting forth the calculation of the royalties due to DREXEL for such Calendar Quarter, including, without limitation:
- 3.3.1.1 Number of Licensed Products involved in Sales, listed by country;
- 3.3.1.2 Gross consideration for Sales of Licensed Products, including all amounts invoiced, billed, or received;
- 3.3.1.3 Qualifying costs, as defined in Section 1.15, listed by category of cost;

- 3.3.1.4 Net Sales of Licensed Products listed by country;
- 3.3.1.5 Royalties owed to DREXEL, listed by category, including without limitation earned, Sublicensee derived, and minimum royalty categories; and
- 3.3.2 LICENSEE shall pay the royalties due under Sections 3.1 and 3.3 to DREXEL within thirty (30) days following the last day of the Calendar Quarter in which the royalties accrue. LICENSEE shall send DREXEL with such royalties the report described in Section 3.3.1.
- 3.3.3 LICENSEE shall maintain and cause its Sublicensees to maintain, complete and accurate books and records that enable the royalties payable under this Agreement to be verified. The records for each Calendar Quarter shall be maintained for three (3) years after the submission of each report under Article 3. Upon reasonable prior notice to LICENSEE, LICENSEE shall provide an independent auditor selected by DREXEL and reasonably acceptable to LICENSEE with access to all books and records relating to the Sales of Licensed Products by LICENSEE and its Sublicensees to conduct a review or audit of those books and records. The auditor shall disclose to DREXEL the findings of the accuracy of any report made or payment submitted by LICENSEE during the audited period, but shall not disclose to any of DREXEL any confidential information of LICENSEE not necessary for such purpose. Access to LICENSEE's books and records shall be made available no more than once each Calendar Year, during normal business hours, and during each of three (3) years after the

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expiration or termination of this Agreement. If DREXEL determines that LICENSEE has underpaid any royalty due by five percent (5%) or more, then LICENSEE shall pay to DREXEL promptly the costs and expenses of DREXEL and its accountants in connection with their review or audit, in addition to such underpayment.

- 3.4 Currency, Place of Payment, Interest, Payment of Expenses.
- 3.4.1 All dollar amounts referred to in this Agreement are expressed in United States dollars. All payments to DREXEL under this Agreement shall be made in United States dollars by check payable to "Drexel University". If LICENSEE receives revenues from Sales of Licensed Products in currency other than United States dollars, then revenues shall be converted into United States dollars at the conversion rate for the foreign currency as published in the eastern edition of The Wall Street Journal as of the last business day of the applicable Calendar Quarter.
- 3.4.2 Amounts that are not paid when due shall accrue interest from the due date until paid, at a rate equal to **[*]** per month or part thereof (or the maximum allowed by law, if less).

ARTICLE 4

CONFIDENTIALITY

- 4.1 Non-Disclosure by LICENSEE. LICENSEE shall maintain in confidence and not disclose to any third party any Confidential Information of DREXEL. LICENSEE shall ensure that its employees have access to Confidential Information only on a need-to-know basis and are obligated in writing to abide by LICENSEE's obligations under this Agreement. The foregoing obligation shall not apply to:
- 4.1.1 Information that is known to LICENSEE prior to the time of disclosure or independently developed by LICENSEE without use of or reference to the Confidential Information, in each case, to the extent evidenced by written records promptly disclosed to DREXEL;
- 4.1.2 Information disclosed to LICENSEE by a third party that has a right to make such disclosure;
- 4.1.3 Information that is or becomes patented, published or otherwise part of the public domain as a result of acts by DREXEL or a third person obtaining such information as a matter of right; or
- 4.1.4 Information that is required to be disclosed by order of United States governmental authority or a court of competent jurisdiction; provided that LICENSEE shall use best efforts to obtain confidential treatment of such information as permitted by the agency or court.

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- 4.2 Limited Non-Disclosure by DREXEL. DREXEL shall not be obligated to accept any confidential information from LICENSEE except for the reports required in Sections 3.2 and 3.3. DREXEL shall not disclose those reports to any third party other than DREXEL's outside advisors who are bound by obligations of confidentiality (subject to exceptions similar to these applicable to LICENSEE under Section 4.1). DREXEL bears no institutional responsibility for maintaining the confidentiality of any other information of LICENSEE.

ARTICLE 5

TERM AND TERMINATION

- 5.1 Term. This Agreement, unless sooner terminated as provided in this Agreement, terminates upon expiration of the last to expire or become abandoned of the Patent Rights.
- 5.2 Termination by LICENSEE. LICENSEE may, upon sixty (60) days written notice to DREXEL, terminate this Agreement by doing all of the following:
- 5.2.1 Ceasing to make, have made, use, import, sell and offer for sale all Licensed Products;
- 5.2.2 Terminating all Sublicensees, and causing all Sublicensees and Affiliates to cease making, having made, using, importing, selling and offering for sale all Licensed Products; and

- 5.2.3 Paying all monies owed to DREXEL under this Agreement, up to the date of termination of this Agreement.
- 5.3 Termination by DREXEL. DREXEL may terminate this Agreement if any of the following events of default (“Default”) occur:
- 5.3.1 LICENSEE is more than thirty (60) days late in paying to DREXEL royalties, expenses, or any other monies due under this Agreement and LICENSEE does not pay DREXEL in full within ten (10) days after written notice of the failure to pay.
- 5.3.2 LICENSEE experiences a Trigger Event; or
- 5.3.3 LICENSEE breaches this Agreement (other than a breach solely under Sections 5.3.1 or 5.3.2) and does not cure the breach within sixty (60) days after written notice of the breach.
- 5.4 Effect of Termination. In the event of a termination under Sections 5.1 or 5.3 hereof, all duties of DREXEL and all rights (but not duties) of LICENSEE and any Affiliate and/or Sublicensee under this Agreement shall immediately terminate without the necessity of any action being taken either by DREXEL or by LICENSEE or any Affiliate or Sublicensee. Upon and after any termination of this Agreement, LICENSEE and any Affiliate and/or

Sublicensee shall refrain from further manufacture, sale, marketing, importation and/or distribution of Licensed Product(s), except as provided in this Article 5.

- 5.5 Return of Confidential Information. Upon termination of this Agreement, LICENSEE and any Affiliate and/or Sublicensee shall, at DREXEL’s request, return to DREXEL all Confidential Information.
- 5.6 Inventories. Upon termination of this Agreement, LICENSEE shall cause physical inventories to be taken immediately of: (a) all completed Licensed Product(s) on hand under the control of LICENSEE or any Affiliate or Sublicensee; and (b) such Licensed Product(s) as are in the process of manufacture and component parts thereof as of the date of termination of this Agreement, which inventories shall be reduced to writing. LICENSEE shall deliver copies of such written inventories, verified by an officer of LICENSEE forthwith to DREXEL. DREXEL shall have 45 days after receipt of such verified inventories within which to challenge the inventory and request an audit. Upon five days written notice to LICENSEE, DREXEL and its agents shall be given access during business hours to the premises of LICENSEE, its Affiliates and/or Sublicensees for the purpose of conducting an audit. Upon the termination of this Agreement, LICENSEE shall, at its own expense forthwith remove, efface or destroy all references to DREXEL from all advertising or other materials used in the promotion of LICENSEE’s business or the business of any Affiliate or Sublicensee and LICENSEE and any Affiliate and/or Sublicensee shall not thereafter represent in any manner that it has rights in or to the Patent Rights or Licensed Product(s).
- 5.7 Sell Off Rights. Notwithstanding the foregoing, if this Agreement terminates other than pursuant to Section 5.1, 5.3.1 or 5.3.2, LICENSEE and its Affiliates shall have a period of six (6) months to sell off its inventory of Licensed Product(s) existing on the date of termination of this Agreement and shall pay royalties to DREXEL with respect to such Licensed Product(s) within thirty (30) days following the expiration of such six-month period (“Sell Off Right”).
- 5.8 Survival. LICENSEE’s obligation to pay all monies owed accruing under this Agreement shall survive termination of this Agreement. In addition, the provisions of Article 4 - Confidentiality, Article 5 - Term and Termination, Article 8 - Disclaimer of Warranties; Indemnification, Article 9 Use of DREXEL’s Name; Independent Contractor and Article 10 - Additional Provisions shall survive such termination.

ARTICLE 6

PATENT MAINTENANCE AND REIMBURSEMENT

DREXEL retains control over the prosecution and maintenance of Patent Rights. Notwithstanding the foregoing, DREXEL shall obtain LICENSEE’s consent prior to filing any

additional patent application(s) in any country not identified on Attachment 1. LICENSEE shall reimburse DREXEL for all reasonable documented attorneys fees, expenses, official fees and other charges incident to the preparation, prosecution and maintenance of Patent Rights within thirty (30) days after LICENSEE’s receipt from time to time of invoices for such fees, expenses and charges. DREXEL shall seek reasonable claims to protect the Patent Rights consistent with DREXEL’s overall patent strategy. DREXEL’s patent counsel shall keep LICENSEE advised as to the status of the Patent Rights by providing LICENSEE, in a timely manner at least thirty (30) days prior to their due date, with copies of all official documents and correspondence relating to the filing, prosecution, maintenance, and validity of the Patent Rights. LICENSEE shall have fifteen (15) calendar days to review and comment on patent-related documents prior to the filing of such documents and correspondence. DREXEL shall not abandon prosecution of any patent application or maintenance of any patent with the Patent Rights without first notifying LICENSEE sixty (60) days prior to any bar date, of DREXEL’s intention and reasons therefore, and providing LICENSEE with reasonable opportunity to assume responsibility for prosecution and maintenance of such patents and patent applications. However, with respect to the issued patents, DREXEL’S patent counsel will send invoices directly to LICENSEE for patent fees and taxes related to maintenance of such patents, with copies to DREXEL, at least 60 days prior to a deadline. LICENSEE shall pay such invoices directly to such patent counsel at least 30 days prior to the deadline, with a copy of correspondence and payment to DREXEL.

ARTICLE 7

INFRINGEMENT AND LITIGATION

- 7.1 **Notification of Infringement.** DREXEL and LICENSEE are responsible for notifying each other promptly of any infringement of Patent Rights which may come to their attention. DREXEL and LICENSEE shall consult one another in a timely manner concerning any appropriate response to the infringement.
- 7.2 **Prosecution by LICENSEE.** LICENSEE may prosecute such infringement at its own expense. LICENSEE shall not settle or compromise any such suit in a manner that imposes any obligations or restrictions on DREXEL or grants any rights to the Technical Information or the Patent Rights, without DREXEL's prior written permission. Except as otherwise provided in Section 7.3, financial recoveries from any such litigation will first be applied to reimburse LICENSEE for its litigation expenditures with additional recoveries being paid to LICENSEE, subject to a royalty due DREXEL based on the provisions of Article 3.
- 7.3 **Intervention by DREXEL.** LICENSEE's rights under Section 7.2 are subject to the continuing right of DREXEL to intervene at DREXEL's own expense and join LICENSEE in any claim or suit for infringement of the Patent Rights. Any consideration received by LICENSEE in settlement of any claim or suit shall be shared between DREXEL and LICENSEE in proportion with their share of the litigation expenses in such infringement action.

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- 7.4 **Prosecution by DREXEL.** If LICENSEE fails to prosecute any infringement, then DREXEL may prosecute such infringement at its own expense. In such event, financial recoveries will be entirely retained by DREXEL.
- 7.5 **Cooperation.** In any action to enforce any of the Patent Rights, either party, at the request and expense of the other party shall cooperate to the fullest extent reasonably possible. This provision shall not be construed to require either party to undertake any activities, including legal discovery, at the request of any third party except as may be required by lawful process of a court of competent jurisdiction.

ARTICLE 8

DISCLAIMER OF WARRANTIES; INDEMNIFICATION

- 8.1 **NO WARRANTIES.** DREXEL represents and warrants to LICENSEE that: (i) DREXEL has sufficient legal and/or beneficial title under its interest in to the Patent Rights necessary to grant the License; and (ii) it has not granted any right to a third party under the Patent Rights. EXCEPT AS EXPRESSLY PROVIDED HEREIN, THE PATENT RIGHTS, TECHNICAL INFORMATION, LICENSED PRODUCTS AND ALL OTHER TECHNOLOGY LICENSED UNDER THIS AGREEMENT ARE PROVIDED ON AN "AS IS" BASIS, AND DREXEL MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT THERETO. BY WAY OF EXAMPLE BUT NOT OF LIMITATION, DREXEL MAKES NO REPRESENTATIONS OR WARRANTIES: (a) OF COMMERCIAL UTILITY; (b) OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; OR (c) THAT THE USE OF THE PATENT RIGHTS, TECHNICAL INFORMATION, LICENSED PRODUCTS OR ANY TECHNOLOGY LICENSED UNDER THIS AGREEMENT WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADE SECRET OR TRADEMARK OR OTHER PROPRIETARY OR PROPERTY RIGHTS OF OTHERS. DREXEL SHALL NOT BE LIABLE TO LICENSEE, LICENSEE'S SUBLICENSEES OR THEIR RESPECTIVE SUCCESSORS OR ASSIGNS OR ANY THIRD PARTY WITH RESPECT TO: ANY CLAIM ARISING FROM USE OF THE PATENT RIGHTS, TECHNICAL INFORMATION, LICENSED PRODUCTS OR ANY TECHNOLOGY LICENSED UNDER THIS AGREEMENT OR FROM THE MANUFACTURE, USE OR SALE OF LICENSED PRODUCTS; OR ANY CLAIM FOR LOSS OF PROFITS, LOSS OR INTERRUPTION OF BUSINESS, OR FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.
- 8.2 **Indemnification.** LICENSEE shall indemnify, defend and hold harmless DREXEL, its trustees, officers, agents and employees (individually, an "Indemnified Party", and collectively, the "Indemnified Parties"), from and against any and all third party liability, loss, damage, action, claim or expense suffered or incurred by the Indemnified Parties

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(including attorneys' fees and expenses) (individually, a "Liability", and collectively, the "Liabilities") that results from or arises out of [*]; and (c) the enforcement by an Indemnified Party of this Section 8.2. Without limiting the foregoing, LICENSEE shall defend, indemnify and hold harmless the Indemnified Parties from and against any Liabilities resulting from:

- 8.2.1 Any product liability or other claim of any kind related to the use by a third party of a Licensed Product that was manufactured, sold or otherwise disposed by LICENSEE, its Affiliates, its assignees, Sublicensees, vendors or other third parties;
- 8.2.2 A claim by a third party that the Technical Information or Patent Rights or the design, composition, manufacture, use, sale or other disposition of any Licensed Product infringes or violates any patent, copyright, trade secret, trademark or other intellectual property rights of such third party; and
- 8.2.3 Clinical trials or studies conducted by or on behalf of LICENSEE, its Affiliates, its assignees, Sublicensees or agents relating to the Technical Information, Patent Rights or Licensed Products, including, without limitation, any claim by or on behalf of a human subject of any such clinical trial or study, any claim arising from the procedures specified in any protocol used in any such clinical trial or study, any claim of deviation, authorized or unauthorized, from the protocols of any such clinical trial or study, and any claim resulting from or arising out of the manufacture or quality control by a third party of any substance administered in any clinical trial or study.
- 8.3 **Rights of DREXEL in Liability Action.** LICENSEE is not permitted to settle or compromise any claim or action giving rise to Liabilities in a manner that imposes any restrictions or obligations on DREXEL or grants any rights to the Technical Information, Patent Rights or Licensed Products without DREXEL's prior written consent. If LICENSEE fails or declines to assume the defense of any such claim or action within thirty (30) days after notice thereof, then DREXEL may assume the defense of such claim or action for the account and at the risk of LICENSEE, and any Liabilities related thereto shall be conclusively deemed a liability of LICENSEE. The indemnification rights of DREXEL or other Indemnified Party contained herein are in addition to all other rights that such Indemnified Party may have at law or in equity or otherwise.

8.4 Insurance

8.4.1 LICENSEE and any Affiliate shall procure and maintain a policy or policies of comprehensive general liability insurance, including broad form and contractual liability, in a minimum amount of \$2,000,000 combined single limit per occurrence and in the aggregate

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as respects personal injury, bodily injury and property damage arising out of such party's performance of this Agreement.

8.4.2 LICENSEE and any Affiliate shall, upon commencement of clinical trials involving Licensed Products, procure and maintain a policy or policies of product liability insurance in a minimum amount of \$3,000,000 combined single limit per occurrence and in the aggregate as respects bodily injury and property damage arising out of such party's performance of this Agreement.

8.4.3 The policy or policies of insurance described in this Section 8.4 shall be issued by an insurance carrier with an A.M. Best rating of "A-" or better and shall name DREXEL as an additional insured with respect to LICENSEE's performance of this Agreement. LICENSEE and any Affiliate shall provide DREXEL with certificates evidencing the insurance coverage required herein and all subsequent renewals thereof. Such certificates shall provide that the insurance carrier(s) notify DREXEL in writing at least 30 days prior to cancellation or material change in coverage.

8.4.4 DREXEL may periodically review the adequacy of the minimum limits of liability insurance specified in this Section, and DREXEL reserves the right in its reasonable discretion to require LICENSEE and any Affiliate to adjust the liability insurance coverages, but may not require LICENSEE to maintain limits in excess of what is deemed reasonable in the biopharmaceutical industry. The specified minimum insurance amounts do not constitute a limitation on the obligation of LICENSEE and any Affiliate to indemnify DREXEL under this Agreement.

ARTICLE 9

USE OF DREXEL'S NAME

LICENSEE and its Affiliates, employees, Sublicensees and agents shall not use, and LICENSEE shall not permit its Sublicensees to use, DREXEL's name or any adaptation thereof, in any advertising or promotional materials or any DREXEL seal, logotype, trademark, or service mark, or the name, mark, or logotype of any DREXEL representative or organization in any way, without the prior written consent of DREXEL in its sole discretion. Notwithstanding the above, Drexel and LICENSEE will work cooperatively to agree upon language for press releases and public statements.

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ARTICLE 10

ADDITIONAL PROVISIONS

10.1 No Agency. Nothing in this Agreement shall be deemed to establish a relationship of principal and agent between DREXEL and LICENSEE or its Affiliates or Sublicensees, nor any of their agents or employees for any purpose whatsoever, nor shall this Agreement be construed as creating any other form of legal association or arrangement which would impose liability upon one party for the act or failure to act of the other party.

10.2 No Assignment. None of LICENSEE, its Affiliates and/or Sublicensees is permitted to assign this Agreement or any part of it, either directly or by merger or other operation of law, without the prior written consent of DREXEL not to be unreasonably withheld or delayed. Any prohibited assignment of this Agreement or the rights hereunder shall be null and void. No assignment relieves LICENSEE, its Affiliates and/or Sublicensees of responsibility for the performance of any accrued obligations that LICENSEE, its Affiliates and/or Sublicensees has prior to such assignment.

10.3 No Waiver. No waiver of any breach or condition of this Agreement shall be deemed to be a waiver of any other subsequent breach or condition, whether of like or different nature.

10.4 Notices. All notices, requests, consents and other communications hereunder shall be in writing and shall be delivered in person or sent overnight delivery by Federal Express or by certified or registered mail, return receipt requested, or telexed in the case of non-U.S. residents, and shall be deemed to have been given when hand delivered, one (1) day after mailing when mailed by overnight courier (e.g. Federal Express or Express Mail) or five (5) days after mailing by registered or certified mail, as follows (provided that notice of change of address shall be deemed given only when received):

If to DREXEL:

Office of Research
Drexel University
Technology Commercialization
3225 Arch Street, Ground Floor
Philadelphia, Pennsylvania 19104
Attention: Anil Rastogi
Vice President for Special Projects

If to LICENSEE:

Nicholas Vahanian
NewLink Genetics Corporation
2901 South Loop Dr, Suite 3900
Ames, IA 50010

or to such other names or addresses as LICENSEE or DREXEL, as the case may be, shall designate by notice to each other person entitled to receive notices in the manner specified in this Section 10.4.

- 10.5 Governing Law and Jurisdiction. This Agreement shall be construed and governed in accordance with the laws of the State of Delaware, without giving effect to conflict of law provisions of any jurisdiction. In the event that a party to this Agreement perceives the existence of a dispute with the other party concerning any right or duty provided for herein, the parties will, as soon as practicable, confer in an attempt to resolve the dispute. If the parties are unable to resolve such dispute amicably, then the parties hereby submit to the exclusive jurisdiction of and venue in the state and federal courts located in Delaware with respect to any and all disputes concerning the subject of, or arising out of, this Agreement.
- 10.6 No Discrimination. DREXEL and LICENSEE, its Affiliates and Sublicensees shall not discriminate against any employee or applicant for employment because of race, color, sex, sexual or affectional preference, age, religion, national or ethnic origin, handicap, or because he or she is a disabled veteran or a veteran of the Vietnam Era.
- 10.7 Compliance with Laws. LICENSEE, its Affiliates and Sublicensees shall comply with all prevailing laws, rules and regulations that apply to its activities or obligations under this Agreement. Without limiting the foregoing, it is understood that this Agreement may be subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities, articles and information, including the Arms Export Control Act as amended in the Export Administration Act of 1979, and that the parties' obligations are contingent upon compliance with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by LICENSEE, its Affiliates and/or Sublicensees that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. DREXEL neither represents that a license is not required nor that, if required, it will issue.
- 10.8 Binding Nature of Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors and assigns, except that any assignment by LICENSEE must comply with Section 10.2 to be effective.
- 10.9 Counterparts, Headings and Exhibits. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The headings used in this Agreement are for convenience only and are not to be considered in construing or interpreting any term or provision of this Agreement. All Schedules and Exhibits hereto are hereby incorporated in this Agreement and made a part hereof.

- 10.10 Integration and Amendment. This Agreement embodies the entire agreement and understanding among the parties hereto and thereto and supersedes all prior agreements and understandings relating to the subject matter hereof or thereof. This Agreement may not be changed, modified, extended or terminated except by written amendment executed by an authorized representative of each party.
- 10.11 Severability. If any provision of this Agreement shall be held to be illegal, invalid or unenforceable, then such illegality, invalidity or unenforceability shall attach only to such provision and shall not in any manner affect or render illegal, invalid or unenforceable any other provision of this Agreement, and this Agreement shall be carried out as if any such illegal, invalid or unenforceable provision were not contained herein.
- 10.12 Number of Days. In computing the number of days for purposes of this Agreement, all days shall be counted, including Saturdays, Sundays and holidays; provided that if the final day of any time period falls on a Saturday, Sunday or holiday on which Federal banks are or may elect to be closed, then the final day shall be deemed to be the next day which is not a Saturday, Sunday or such holiday.

IN WITNESS WHEREOF, the parties, intending to be legally bound, have caused this Agreement to be executed by their duly authorized representatives.

DREXEL UNIVERSITY

LICENSEE:
NEW LINK GENETICS CORPORATION

By: /s/Anil Rastogi

By: /s/Nicholas Vahanian

Name: Anil Rastogi, Ph.D.

Name: Nicholas Vahanian, M.D.

Title: Vice President
for Special Projects

Title: Chief Medical and Operations Officer

Date: October 13, 2004

Date: October 14, 2004

Attachment 1 - List of Patents and Patent Applications

Drexel Patents:

United States	Patent Number: 5,879,675 (issued 3/9/99)
	Patent Number: 6,361,775 (issued 3/26/02)
Canada	Patent Number: [*]
European	Patent Number: [*]
France	Patent Number: [*]
Great Britain	Patent Number: [*]
Italy	Patent Number: [*]
Germany	Patent Number: [*]

Attachment 2 - Development Plan

One of LICENSEE’s main technology platforms is the HyperAcute™ family of cancer vaccines which have already entered clinical trials. The first trial based on HyperAcute™ technology was approved for use in human clinical trials in 2003 and a Phase I/II trial of HyperAcute-Lung for patients with late stage non-small lung cancer is being conducted at the National Cancer Institute in Bethesda, Maryland. The second drug, HyperAcute™-breast was approved by the FDA for human clinical trials in late 2003 and a Phase I/II trial of this vaccine in women with recurrent or refractory breast cancer is currently screening patients in central Iowa locations. In 2004-2005, LICENSEE will submit two additional Investigational New Drug Applications for clinical trials of HyperAcute™-based drugs for the treatment of prostate cancer and melanoma, with the intention to open the trials for patients during 2005.

Furthermore, LICENSEE’s intends to expand its drug portfolio to antiviral vaccines based on the use of a-galactosylated viral antigens. In particular, LICENSEE intends to apply this technology primarily for the development of [*], but it may also investigate the implementation of this technology for [*] and potentially to treat or prevent [*]. Development of this technology has to evolve through several steps that first involve conceptualization of the experiments, and then in vitro and animal preclinical testing, human clinical trials and commercial production and development.

Due to the theoretical and practical difficulties that an [*] has shown in previous clinical trials it is not possible to make a prediction of which would be the best way for implementation of this technology for the development of an effective vaccine. Therefore, several strategies are under consideration, which include the following antigenic preparations for the induction of cellular cytotoxicity and [*] antibodies:

[*]

The above mentioned strategies are purely theoretical at this point, and LICENSEE does not give any warranty that their implementation will be successful for prevention or treatment of [*]. Similar embodiments of these ideas can be adapted for the preparation of other antiviral vaccines.

From the commercial standpoint, we intend to develop and market the above mentioned cancer and viral vaccines in the United States and also to expand these operations to [*].

Drexel University and NewLink Genetics

Term Sheet for License Agreement

September 15, 2004

The parties have agreed to the following financial terms for a proposed exclusive license from Drexel University to NewLink Genetics for the use and exploitation of the listed patents. However, the parties recognize that there are other terms that remain to be negotiated. Moreover, the parties are not obligated to enter in to any agreement with one another and no transaction shall be effective unless and until definitive binding legal agreements, incorporating terms and conditions customary to Drexel University license transactions and acceptable to all parties, are executed.

Drexel Patents:

United States	5,879,675 (issued 3/9/99)
	6,361,775 (issued 3/26/02)
Canada	[*]
European	[*]
France	[*]
Great Britain	[*]
Italy	[*]
Germany	[*]

Summary of Key Terms

Exclusive Exclusive and worldwide license

Fields of Use All fields of use

Up-front payment [*]

Reimbursement [*] in patent costs and ongoing patent fees and expenses.

Annual payment

Year 2 (2005) [*]

Year 3 and yearly thereafter [*]

Milestone payments [*]

Royalties [*]

Stacking royalty [*]

(if combined with other technologies)

Sublicensing [*]

Accepted and agreed to:

DREXEL UNIVERSITY

NEWLINK GENETICS

By: /s/Anil Rastogi
Anil Rastogi, Ph.D.
Vice Provost & Vice President
Entrepreneurship &
Technology Commercialization

By: /s/Nicholas Vahanian
Nicholas Vahanian, M.D.
Chief Medical and Operations Officer

Date: Sept. 20, 2004

Date: Sept. 21, 2004

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

**LICENSE AGREEMENT BETWEEN CENTRAL IOWA HEALTH SYSTEM
AND NEWLINK GENETICS CORPORATION**

THIS LICENSE AGREEMENT (the “Agreement”), by and between **CENTRAL IOWA HEALTH SYSTEM**, a not-for-profit corporation, organized and existing under the laws of the state of Iowa (“CIHS”), and **NEWLINK GENETICS CORPORATION**, a Delaware corporation, having a principal place of business at 2901 S. Loop Drive, Ames, Iowa, 50010 (“NEWLINK”) is effective as of the 2nd day of August, 2001 (the “Effective Date”). CIHS and NEWLINK are sometimes referred to herein individually as a “Party” and collectively as the “Parties.”

RECITALS

WHEREAS, CIHS owns one hundred percent (100%) interest in the Human Gene Therapy Research Institute located in Des Moines, Iowa (“HGTRI”);

WHEREAS, CIHS owns the Inventions, Licensed Patents and Licensed Technology (as hereinafter defined); and

WHEREAS, CIHS has the right to grant, and NEWLINK desires to acquire, licenses to make use and sell certain products utilizing the Licensed Patents and Licensed Technology, and to grant sublicenses upon the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the Parties agree as follows:

1. DEFINITIONS

1.0 “Active Component” shall mean an ingredient in a Combination Product, which is biologically active and can be used for either therapeutic or preventative purposes, but does not include diluents, vehicles, adjuvants, or any other ingredients which does not have any, or which has only incidental, therapeutic or preventative properties when present alone.

1.1 “Affiliate” shall mean an entity which controls, is controlled by, or is under common control with, a party. For this purpose, “control” means the possession of the power to direct or cause the direction of the management and the policies of an entity, whether through ownership directly or indirectly of fifty percent (50%) or more of the stock entitled to vote, or where control of fifty percent (50%) or more of such rights is not permitted in the country where such entity exists, the maximum permitted in such country.

1.2 “Commercially Reasonable Efforts” shall mean the application of efforts and resources consistent with industry standards for a product of similar market and profit potential. Commercially Reasonable Efforts requires that a Party promptly assign responsibility for such matter to specific employee(s) who are held accountable for the progress of such project.

1.3 “Control” shall mean the ability to grant a license, sublicense, or access as

provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.4 “Invention” shall mean any invention covered by one or more Valid Claims within the Licensed Patents.

1.5 “Field of Use” shall mean the diagnosis, prevention, treatment and mitigation of diseases and conditions in humans, animals, and plants.

1.6 “Licensed Patents” shall mean (a) the patents and patent applications listed in Exhibit A, and (b) all provisionals, divisionals, substitutions, and continuations of the patents and patent applications in Section 1.6(a), as well as any claim in a continuation-in-part patent or application that would be entitled to claim priority to the filing date of one or more of the patents or patent applications in Section 1.6(a), and (c) the patent applications from which the patents listed on Exhibit A issued, excluding those claims within such patent applications that do not cover the inventions claimed in the patents and patent applications listed in Exhibit A, and (d) all reissues, re-examinations, and extensions of any of the preceding patents or of patents issuing on the preceding patent applications, and all foreign counterparts thereof.

1.7 “Licensed Product(s)” shall mean any product useful in the Field of Use, (a) the manufacture, use or sale of which is covered in whole or in part by one or more Valid Claims within the Licensed Patents or (b) that incorporates any Licensed Technology.

1.8 “Licensed Technology” shall mean all proprietary information, know-how, biological, chemical or physical materials, procedures, methods, prototypes, designs, technical data, reports, and pre-clinical data owned or Controlled by HGTRI before and as of the Effective Date that are necessary for NEWLINK to exercise and practice all Valid Claims of the Licensed Patents pursuant to this Agreement, as designated by mutual agreement of the Parties and listed or attached in written format in Exhibit B, after the earlier of (a) NEWLINK’s completion of its review of the records and documents at HGTRI relating to such Licensed Technology or (b) six (6) months after the Effective Date. It is understood that NEWLINK’s review of such records and documents at HGTRI shall be during such times and subject to such restrictions (including, but not limited to, confidentiality obligations) as the Parties mutually agree. “Licensed Technology” does not include Licensed Patents.

1.9 “Net Sales” shall mean the total amount (in United States dollars) invoiced for sales of the Licensed Product, by NEWLINK, its Affiliates, or Sublicensees to unrelated Third Parties in bona fide arm’s length transactions, less the following deductions, in each case related specifically to the Licensed Product in question and actually allowed and taken and not otherwise recovered by or reimbursed to NEWLINK, its Affiliates, or Sublicensees:

(a) trade, cash and quantity discounts; (b) taxes on sales (such as sales or use taxes) to the extent added to the sales price and set forth separately as such in the total amount invoiced; (c) freight, insurance and other transportation charges to the extent added to the sales price and set forth separately as such in the total amount invoiced; and (d) amounts repaid or credited by reason of rejections, defects or returns or because of the retroactive price reductions, chargebacks, or rebates under any government programs.

1.10 “Phase I”, “Phase II” and “Phase III” shall mean Phase I, Phase II and

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Phase III clinical trials, respectively, in each case as prescribed by the U.S. Food and Drug Administration or a corresponding foreign entity.

1.11 “Regulatory Approval” shall mean (a) in the United States, approval by the FDA of an NDA or equivalent application (such as a BLA or PMA) and satisfaction of any related applicable FDA registration and notification requirements (if any); and (b) in any country other than the United States, approval by regulatory authorities having jurisdiction over such country of a single application or set of applications comparable to an NDA and satisfaction of any related applicable regulatory and notification requirements, if any, together with any other approval necessary to make and sell Products commercially in such country.

1.12 “Sublicensee” shall mean any Third Party (a) to whom NEWLINK or its Affiliates has granted a license or sublicense under the Licensed Patents to develop, make, have made, import, use, sell, offer for sale, or otherwise exploit a Licensed Product in the Field of Use within the Territory; or (b) to whom NEWLINK or its Affiliates has granted a right to distribute a Licensed Product in the Field of Use in the Territory pursuant to an agreement between NEWLINK and such Third Party; provided that such Third Party has the responsibility for marketing and/or promoting the Licensed Products within the territory in which such distribution rights are granted. For the avoidance of doubt, wholesalers and retailers who do not take such marketing and/or promotion responsibility shall not be Sublicensees.

1.13 “Term” shall have the meaning set forth in Section 8.0.

1.14 “Territory” shall mean worldwide.

1.15 “Third Party(ies)” shall mean any entity other than CIHS, HGTRI or NEWLINK.

1.16 “Valid Claim” shall mean either (a) a claim of an issued and unexpired patent included within the Licensed Patents which has not been held invalid or unenforceable by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal; or (b) a claim of a pending patent application included within the Licensed Patents, which claim has not been abandoned or finally disallowed without the possibility of appeal or refiling of such application. Notwithstanding the foregoing, if a claim of a pending patent application has not issued as a claim of an issued patent within seven (7) years from the date from which such claim takes priority, such pending claim shall not be a Valid Claim for purposes of the Agreement, unless and until the patent is issued including such claim.

2. GRANT

2.0 License Grant. Subject to the reservation of rights set forth in Section 2.1 below, CIHS hereby grants to NEWLINK, upon the terms and conditions herein specified, an exclusive royalty-bearing license, including the right to grant sublicenses, under the Licensed Patents and Licensed Technology to develop, make, have made, use, sell, offer for sale, and import Licensed Products in the Territory and in the Field of Use only.

2.1 Reservation of Rights. The grant in Section 2.0 shall be subject to and non-exclusive with respect to:

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(a) The right of CIHS to practice the inventions claimed in the Licensed Patents and to use the Licensed Technology for its own non-commercial bona fide research.

(b) The right of CIHS to license nonexclusively other academic or research institutions to practice the inventions claimed in the Licensed Patents and to use the Licensed Technology for non-commercial research purposes.

(c) The right of CIHS to publish any information included in the Licensed Technology and Licensed Patents provided that NEWLINK shall have the right to review such information prior to publication. CIHS shall provide NEWLINK with a copy of the proposed publication at least thirty (30) days prior to submission of such proposed publication to the publisher. NEWLINK will provide comments, if any, within thirty (30) days of receipt of such proposed publication. If NEWLINK determines that such proposed publication contains Confidential Information of NEWLINK, then NEWLINK may notify CIHS in writing, prior to the expiration of the thirty (30) day period, specifying the information that NEWLINK considers its Confidential Information, and may request that such Confidential Information be deleted from the proposed publication. If NEWLINK determines that the proposed publication contains subject matter for which intellectual property protection should be sought, then NEWLINK may so notify CIHS in writing prior to the expiration of the thirty (30) day period and CIHS shall then delay publication of such information for up to a maximum of sixty (60) days from receipt of such notice solely to enable NEWLINK to file Patent Applications or seek other forms of intellectual property protection as deemed necessary by NEWLINK.

2.2 Government Rights. This Agreement is subject to all terms and conditions of Title 35 United States Code Sections 200 through 204, including, without limitation, an obligation that Licensed Products sold or produced in the United States be “manufactured substantially in the United States,” and NEWLINK agrees to take all reasonable action necessary on its part as licensee to enable CIHS to satisfy its obligation thereunder, relating to the Licensed Technology and the inventions claimed in the Licensed Patents.

2.3 Due Diligence.

(a) NEWLINK agrees to [*], (2) obtain, at a minimum, the[*] for NEWLINK (or its Affiliates, and its Sublicensees) to [*] in [*] in which [*] are projected to provide [*] NEWLINK, its Affiliates and Sublicensees, and (3) following receipt of the [*] in [*] during the Term of this

Agreement. As used herein, “[*]” shall include but is not limited to, [*].

(i) As part of its Commercially Reasonable Efforts, NEWLINK shall deliver to CIHS, within ninety (90) days of the Effective Date, a [*] the [*] to [*] the [*] and [*] of [*] and [*] and [*] for the [*] of [*] of the [*]. Every half year thereafter, on or before January 1 and June 1 of each calendar year, NEWLINK shall provide CIHS with an [*] showing the [*] commencing upon such half yearly date.

(ii) Within thirty (30) days after January 1 of each year, NEWLINK shall make a written annual progress report (“Progress Report”) to CIHS covering the preceding calendar year ending December 31 and detailing the progress of NEWLINK toward commercial use of the Licensed Products. Such report shall include, at a minimum, information sufficient to enable CIHS to satisfy reporting requirements of the U.S. Government and for CIHS to ascertain

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progress by NEWLINK toward meeting the diligence requirements of this Section 2.3.

(iii) The sole purpose of the [*] and Progress Reports shall be for informational purposes and to enable the Parties to discuss in good faith NEWLINK’s compliance with its obligation to use Commercially Reasonable Efforts as set forth in this Section 2.3. The reporting obligations of NEWLINK under Sections 2.3(a)(i) and 2.3(a)(ii) shall expire upon the commencement of NEWLINK’s reporting obligations under Section 2.3(b).

(b) Commencing ninety (90) days after commercial launch of a Licensed Product in a country and within sixty (60) days after December 31 of each calendar year thereafter, NEWLINK shall provide written annual reports to CIHS which shall include but not be limited to: reports of progress on research and development, Regulatory Approvals received for Licensed Products, manufacturing, sublicensing, marketing and sales activities by NEWLINK, its Affiliates or Sublicensees during the preceding twelve (12) months, as well as, plans of such activities for the coming year. NEWLINK shall also deliver to CIHS a copy of its annual report to stockholders, promptly following the availability of such report.

(c) Without limiting the foregoing, NEWLINK shall have the specific obligation to achieve the following diligence milestones:

(i) Within [*] after the Effective Date, either (a) NEWLINK will have expended [*] for research and development related to the Inventions; or (b) NEWLINK will have raised [*] in equity capital;

(ii) Within [*] after the Effective Date, either (a) NEWLINK or its Sublicensee will have developed a Licensed Product through [*] or (b) NEWLINK will have expended [*] for research and development related to the Inventions; or (c) NEWLINK will have raised an aggregate of [*] in equity capital, including the equity capital amount set forth in subsection (i) above;

(iii) Within [*] years after the Effective Date, either (a) NEWLINK or its Sublicensee will have commenced [*] on a Licensed Product; or (b) NEWLINK will have expended [*] for research and development related to the Invention; or (c) NEWLINK will have raised an aggregate of [*] in equity capital, including the equity capital amounts of subsections (i) and (ii) above;

(d) In addition, NEWLINK shall use Commercially Reasonable Efforts to negotiate appropriate sponsored research programs with researchers at CIHS in connection with the development of Licensed Products or other product opportunities in the Field of Use, as funds become available to NEWLINK for basic research. Funds provided by NEWLINK for such sponsored research programs may be used to satisfy the diligence milestones set forth in Section 2.3(c).

(e) NEWLINK shall use Commercially Reasonable Efforts to grant sublicenses for the development and commercialization of Licensed Products within the Field of Use that are not otherwise being diligently developed or commercialized by NEWLINK, its Affiliates or Sublicensees; provided however, that in no event shall NEWLINK be obligated to grant to any Third Party a sublicense if such Third Party is a [*] or [*], or if the grant of such sublicense would reasonably have an adverse effect on NEWLINK’s, its Affiliate’s or

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Sublicensee’s development or commercialization of Licensed Products in the field of [*]. CIHS recognizes that NEWLINK will initially focus its development efforts on a few products of strategic importance, and agrees that NEWLINK’s Commercially Reasonable Efforts hereunder will be evaluated in view of NEWLINK’s available resources and financing stage.

2.4 Failure to Meet Due Diligence Requirements.

(a) In the event that NEWLINK fails to meet the diligence milestones of Section 2.3(c)(i), the Parties shall in good faith review for a period of thirty (30) days whether NEWLINK has materially satisfied its diligence obligations under this Agreement. If CIHS, in good faith, reasonably concludes that NEWLINK has failed in this respect, it shall so notify NEWLINK in writing and NEWLINK shall then have six (6) months to cure such failure. In the event that NEWLINK fails to meet the diligence milestones of Sections 2.3(c)(ii) or 2.3(c)(iii), the Parties shall in good faith review for a period of thirty (30) days whether NEWLINK has materially satisfied such diligence obligation under this Agreement. If CIHS, in good faith, concludes that NEWLINK has failed in this respect, it shall so notify NEWLINK in writing and NEWLINK shall then have three (3) months to cure such failure. In each case, if NEWLINK fails to cure its failure to meet the appropriate milestone within the applicable cure period, CIHS shall have the right, at its option, to either terminate, or convert to non-exclusive, the license granted under Section 2.0 of this Agreement.

(b) In addition to Section 2.4(a), if CIHS determines in its reasonable good faith judgement that NEWLINK has failed to (i) use Commercially Reasonable Efforts to develop or commercialize the Licensed Products in a particular field within the Field of Use, and/or (ii) use

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Commercially Reasonable Efforts to grant sublicenses for the development and commercialization of Licensed Products within the Field of Use that are not otherwise being diligently developed or commercialized by NEWLINK, its Affiliates or Sublicensees, pursuant to Section 2.3(e), then CIHS shall so notify NEWLINK in writing, and following such notice, the Parties shall in good faith review for a period of thirty (30) days whether NEWLINK has materially satisfied such diligence obligations. If CIHS, in good faith, reasonably concludes that NEWLINK has failed in this respect, it shall so notify NEWLINK in writing and NEWLINK shall then have six (6) months to cure such failure. If NEWLINK fails to cure such failure within the applicable cure period, CIHS shall have the right, at its option, to either terminate, or convert to non-exclusive, the license granted under Section 2.0 of this Agreement with respect to such particular field.

2.5 Sublicenses.

(a) **General.** The license granted to NEWLINK under Section 2.0 of this Agreement shall include the right to grant sublicenses. Any sublicenses granted by NEWLINK under this Agreement shall be subordinate to the terms and conditions of this Agreement. NEWLINK shall promptly notify CIHS of the identity and address of each Sublicensee with whom it concludes a sublicense agreement and agrees to provide to CIHS a redacted copy of each such sublicense agreement sufficient in scope to ensure compliance with the terms of this Agreement.

(b) **Assignment of Sublicenses.** Upon request by a Sublicensee, and at CIHS's discretion, a sublicense granted by NEWLINK under the Licensed Patents and Licensed Technology shall remain in effect and be assigned to CIHS in the event this Agreement terminates, but only to the extent such sublicense is consistent with the terms of this Agreement and is not in breach thereof.

3. ROYALTIES AND MILESTONES

3.0 **License Issue Fee.** In partial consideration of the licenses granted under Section 2.0, NEWLINK shall enter into a stock purchase agreement with the Stoddard Cancer Research Institute (a d.b.a. of CIHS) in the form attached hereto as Exhibit C (the "Stock Purchase Agreement") concurrently with the execution of this Agreement, which Stock Purchase Agreement shall be consistent with the terms set forth in subsections (a) and (b), as follows:

(a) NEWLINK shall issue, [*] to the Stoddard Cancer Research Institute, [*] shares of NEWLINK's common stock (the "Shares");

and

(b) In addition, the Stock Purchase Agreement shall provide that CIHS shall have the following rights with respect to such Shares:

(i) The right to transfer the Shares;

(ii) Voting rights;

(iii) The right to purchase additional shares of stock of NEWLINK on the same terms and conditions as those offered to NEWLINK's potential investors in such financing round, to maintain CIHS' or its designee's pro-rata ownership in NEWLINK; and

(iv) Piggy back registration rights beginning no later than six months

following an initial public offering of NEWLINK stock.

3.1 **Patent Fees and Expenses.** Additionally, NEWLINK shall reimburse CIHS for any out-of-pocket patent fees and expenses incurred by CIHS for filing, prosecuting and maintaining the Licensed Patents [*], subject to the following: (a) if NEWLINK fails or elects not to pay any such patent fees or expenses with respect to a patent or patent application within thirty (30) days after an invoice therefor from CIHS, NEWLINK's rights and licenses granted to NEWLINK hereunder with respect to such patent or patent application shall immediately terminate and such patent application or patent shall no longer be included in Licensed Patents; and (b) if NEWLINK disputes its obligation to pay any out-of-pocket patent fees and expenses invoiced by CIHS pursuant to Section 3.1, then the Parties shall for thirty (30) days in good faith attempt to resolve the dispute, provided that NEWLINK shall not thereby be relieved of its obligations to make timely payment of any and all undisputed amounts when due to CIHS.

3.2 **Royalties.** Subject to the terms and conditions of this Agreement, commencing on the Effective Date of this Agreement, NEWLINK shall pay CIHS royalties on Net Sales of Licensed Products by NEWLINK, its Affiliates and Sublicensees on a country-by-country and Licensed Product-by-Licensed Product basis as follows:

(a) In countries where the manufacture, use, sale, offer for sale, or import of Licensed Products would, but for the grant of the license under the Agreement, infringe a Valid Claim of the Licensed Patents, NEWLINK shall pay to CIHS a royalty on Net Sales of Licensed Products in such countries at a rate equal to [*] of annual Net Sales of Licensed Products. In the event that the manufacture, sale or use of any Licensed Product is not covered by a Valid Claim within the Licensed Patents in a country, then NEWLINK shall pay to CIHS a royalty with respect to Net Sales in such country of such Licensed Products by NEWLINK, its Affiliates and Sublicensees at a rate equal to [*].

(b) The royalty obligations of NEWLINK shall expire on a country-by-country and Licensed Product-by-Licensed Product basis upon the later of (i) the expiration of the last to expire Valid Claim within the Licensed Patents covering the Licensed Product in a country (such expiration to occur only after expiration of extensions of any nature to such patents which may be obtained under applicable statutes or regulations in the respective countries of the Territory, such as the Drug Price Competition and Patent Term Restoration Act of 1984 in the U.S.A., and similar patent extension laws in other countries), or (ii) until twelve (12) years following the first commercial sale of a Licensed Product in a country. Following expiration of the royalty obligations for each Licensed Product in each country, NEWLINK shall retain a fully-paid, [*] license under the Licensed Technology to make, have made, use, sell, offer for sale, and import such Licensed Products in such country.

(c) **Combination Products.** Sales of any products that contain one or more Licensed Products and one or more Active Component(s) that is not a Licensed Product ("Combination Product") shall be determined as follows. Net Sales shall first be calculated in accordance with the definition of Net Sales set forth in Section 1.10, and then multiplied by the fraction, A/A + B, where A is the invoiced sales price charged for the Licensed

the definition of Net Sales set forth in Section 1.10, and then multiplied by a fraction, A/C, where A shall be the invoiced sales price of the Licensed Products included in such Combination Product and C shall be the invoiced sales price of the Combination Products. If neither the Licensed Product nor the other Active Component(s) included in such Combination Product are sold separately, then Net Sales of the Combination Product shall be first determined in accordance with the definition of Net Sales set forth in Section 1.10, as adjusted by a mechanism to be agreed upon by the Parties in good faith based upon the respective fair market values of such Licensed Product and such Active Component(s). The cost in each case shall be determined in accordance with generally accepted accounting principles of the United States.

(d) Notwithstanding the foregoing, in no event shall the royalties owed to CIHS on a given Licensed Product under Section 3.2(a) be less than [*] of Net Sales (as defined in Section 1.10) in the case of Licensed Products covered by a Valid Claim, or less than [*] of Net Sales (as defined in Section 1.10) in the case of Licensed Products not covered by a Valid Claim.

3.3 Minimum Royalties. Following the First Commercial Launch of Licensed Product, NEWLINK shall pay to CIHS a minimum annual royalty as follows: Prior to December 31 of the calendar year in which the first Licensed Product is Commercially Launched, NEWLINK shall pay to CIHS [*] (“Initial Payment”). A second payment of [*] shall be due on the first anniversary of the Initial Payment. Prior to each of the second and third anniversaries of the Initial Payment, NEWLINK shall pay CIHS [*], and prior to the fourth and fifth anniversaries of the Initial Payment, NEWLINK shall pay CIHS [*]. Any royalties resulting from Net Sales of Licensed Products in a given year may be credited against the minimum royalty due for that year. For purposes of this Section 3.3, “First Commercial Launch” or “Commercially Launched” shall mean, with respect to each Licensed Product in each country, the first bona fide commercial sale of a Licensed Product in a country by or under authority of NewLink, its Affiliates or Sublicensees, including without limitation, any offer for sale or sale made by NewLink, its Affiliates or Sublicensees to a Third Party pursuant to a written agreement.

3.4 Sublicensing Fee. In addition to the amounts owed by NewLink to CIHS pursuant to Section 3.0, 3.1, 3.2, and 3.3 above, if NEWLINK grants a sublicense of its rights hereunder to a Third Party, NEWLINK agrees to pay to CIHS a sublicensing fee of [*] of any [*] and other consideration (other than [*] or [*] on [*], and [*] within [*] of [*]) (collectively, the “Sublicensing Fee”) received by NEWLINK from each Sublicensee in consideration for the grant of a sublicense of the Licensed Patents or development of a Licensed Product.

3.5 Third Party Royalties. NEWLINK shall be responsible for all Third Party payments and/or licenses of Third Party technology necessary to practice the Licensed Patents and Licensed Technology to make, use or sell Licensed Products (“Necessary Rights”). In the event that NEWLINK pays royalties to Third Parties pursuant to a written agreement under which it obtains Necessary Rights for a particular Licensed Product in a particular country(ies) (each a “Third Party Agreement”), NEWLINK may offset, on a Licensed Product-by-Licensed Product and country-by-country basis, up to [*] of the royalties due under such Third Party Agreements against royalties which are due CIHS hereunder for such Licensed Product in such country(ies), in each case, in such calendar year. Notwithstanding the foregoing, the royalty due to CIHS as set forth in Section 3.2 in each calendar quarter for any Licensed Product shall not be reduced to less than [*] of that (or, i.e., [*] of Net Sales for Licensed Products covered by a Valid Claim in such country, and [*] of Net Sales for Licensed Products not covered by a Valid Claim in such country).

3.6 Schedule and Form of Payment/Taxes.

(a) Following the first commercial sale of a Licensed Product, NEWLINK shall make quarterly written reports to CIHS within thirty (30) days after the end of each calendar quarter, stating in each such report the aggregate Net Sales of Products sold by NEWLINK, its Affiliates and Sublicensees during the calendar quarter. Simultaneously with the delivery of each such report, NEWLINK shall pay to CIHS the total royalties, if any, due to CIHS for the period of such report. If no royalties are due, NEWLINK shall so report. Neither Party shall provide to Third Parties any information contained in reports provided to such Party pursuant to this Section 3.6, except as required by a Party’s agreements with its licensors.

(b) All amounts payable to CIHS hereunder shall be payable in United States dollars. All amounts payable to CIHS hereunder shall be payable in United States dollars in Iowa, or at such other place as CIHS may reasonably designate, provided, however, that if the law of any foreign country prevents any payment payable to CIHS hereunder to be made in Iowa, or otherwise designated by CIHS or prevents any such payment to be made in United States dollars, CIHS agrees to accept such royalty in form and place as permitted, including deposits by NEWLINK in the applicable foreign currency in a local bank or banks in such country designated by NEWLINK. If any currency conversion is required in connection with any payments to CIHS hereunder, such conversion shall be made at the buying rate for the transfer of such other currency as quoted by CITICORP BANK (NEW YORK) on the last business day of the applicable accounting period, in the case of any payment payable with respect to a specified accounting period, or in the case of any other payment, the last business day prior to the date of such payment. All such payments shall be paid in United States dollars, originated from a United States bank located in the United States and made by bank wire transfer in immediately available funds to such account as the receiving party shall designate.

(c) Where required to do so by applicable law or treaty, NEWLINK shall withhold taxes required to be paid to a taxing authority on account of such income to CIHS, and NEWLINK shall furnish CIHS with satisfactory evidence of such withholding and payment in order to permit CIHS to obtain a tax credit or other relief as may be available under the applicable law or treaty.

(d) Any amounts payable to CIHS hereunder that are not paid on the date such payments are due under this Agreement shall accrue interest from the due date until paid, at a rate equal to [*] per month (or the maximum allowed by law, if less). Said

3.7 Records. NEWLINK shall maintain complete and accurate records showing gross sales, deductions and other relevant information sufficient to enable accurate calculation of royalties on a country-by-country and Licensed Product-by-Licensed Product basis and other fees payable hereunder by NEWLINK to CIHS. NEWLINK shall, at CIHS's request and expense, provide certified statements from NEWLINK's auditors, concerning royalties and other fees due pursuant to this Agreement. Once a calendar year, CIHS shall have the right to select a certified public accountant to inspect, on reasonable notice and during regular business hours, the records of NEWLINK to verify NEWLINK's statements and royalty payments due pursuant to this Agreement. Inspections conducted under this Section 3.7 shall be at CIHS's expense, provided, if such an audit correctly uncovers a deficiency in payment of royalties payable by NEWLINK hereunder, NEWLINK shall immediately pay to CIHS such deficient amount, and if the amount of any such deficiency is greater than five percent (5%) of the total amount due during the audited period, NEWLINK shall bear the reasonable out of pocket expenses of such accounting firm to conduct such audit. Records shall be preserved by NEWLINK for five (5) years for inspection by CIHS.

4. PROSECUTION AND MAINTENANCE OF LICENSED PATENTS

4.0 Prosecution. CIHS shall, using patent counsel of its choice, have the initial right to control the preparing, filing, prosecuting and maintaining patent applications and patents within the Licensed Patents. CIHS shall provide NEWLINK a reasonable opportunity to review and comment upon all such filings prior to their submission to patent authorities. If CIHS elects not to pursue any patent application or patent within the Licensed Patents, CIHS shall notify NEWLINK reasonably in advance of any filing deadline or material date and NEWLINK shall have the right, but not the obligation, to assume control of the preparation, filing, protection and maintenance of such patent or patent application, at its expense.

4.1 Payment of Costs. NEWLINK shall pay all costs incurred in connection with preparing, filing, prosecuting and maintaining patent applications and patents within the Licensed Patents that accrue on or after January 1, 2000. In the event that NEWLINK decides not to continue to pay costs related to a particular patent/patent application within the Licensed Patents in a particular country, NEWLINK shall timely notify CIHS in writing thereof, and concurrent with such notice, NEWLINK's rights under this Agreement to practice the inventions under such patent/patent application within the Licensed Patents in such country shall immediately terminate.

4.2 Patent Enforcement.

(a) Each Party shall notify the other Party in writing of any alleged or threatened infringement of Licensed Patents of which it becomes aware and which may adversely impact the rights of the Parties hereunder.

(b) NEWLINK shall have the first right, but not the obligation, to prosecute any infringement of the Licensed Patents or defend any declaratory judgment with respect to the

Licensed Patents. If NEWLINK elects to commence an action described above, CIHS may, to the extent permitted by law, elect to join as a party to the action. Any recovery obtained in such an action shall be used first to reimburse costs of NEWLINK, then CIHS, in prosecuting such action (including reasonable attorney's fees). Any remainder of the recovery shall be distributed as follows: [*]. CIHS shall have the right, but not the obligation, to prosecute any such infringement of the Licensed Patents if NEWLINK does not elect to do so within one hundred eighty (180) days after the Parties become aware of allegedly infringing activities. Any recovery obtained in such an action brought by CIHS under the preceding sentence shall be used first to reimburse costs of CIHS, then NEWLINK, in prosecuting such action (including reasonable attorney's fees). Any remainder of the recovery shall be distributed as follows: [*].

4.3 Control of Third Party Enforcement Actions. During the term of this Agreement, either Party that brings an action to enforce the Licensed Patent shall prosecute such action, at its own expense, utilizing counsel of its choice, subject to reimbursement of costs pursuant to Section 4.2(b). No settlement, consent judgment or other voluntary final disposition of any such suit may be entered into without the written consent of the other Party, which consent shall not unreasonably be withheld.

4.4 Cooperation. In any suit to enforce and/or defend the Licensed Patent pursuant to this Agreement, the Party not in control of such suit shall, at the request and expense of the controlling Party, cooperate in all respects and, to the extent reasonably possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like. Any out-of-pocket costs incurred by the Party not in control of such suit shall be promptly reimbursed by the Party controlling such suit, subject to reimbursement pursuant to Section 4.2(b).

4.5 Activities for Licensed Products Infringing Rights of Third Parties. Each Party shall promptly notify the other if any legal proceedings are commenced or threatened against either Party alleging that the manufacture, use, sale or possession of the Licensed Product infringes a Third Party's patent or other intellectual property rights. In such event, the Parties shall meet to discuss the course of action to be taken with respect to an enforcement action with respect to such infringement or misappropriation.

5. MARKINGS

5.1 Product Markings. NEWLINK shall mark all Licensed Products (or their containers or labels) made, sold, or otherwise disposed of by NEWLINK, its Affiliates or Sublicensees, under the license granted in this Agreement, in accordance with all applicable United States and foreign statutes pertaining to the marking of products with patent pending, patent number(s), copyrights, or other intellectual property notices and legends required to maintain the intellectual property rights licensed in this Agreement.

6. CONFIDENTIALITY

6.0 Confidential Information. Except as expressly provided herein, the Parties agree that, for the term of this Agreement and for five (5) years thereafter, the receiving Party shall not publish or otherwise disclose and shall not use for any purpose any Confidential Information furnished to it by the other Party hereto pursuant to this Agreement. For purposes of this Agreement, "Confidential Information" shall mean all nonpublic technical and/or

business information (whether patentable or copyrightable), including without limitation, inventions, unpublished and draft patent applications and any information contained therein, formulae, trade secrets, processes, laboratory notebooks, reports, technical data and technology, that is owned or possessed by the disclosing Party and furnished or otherwise made available to the receiving Party either (a) between January 1, 1999 and the Effective Date ("Pre-Agreement Period") or (b) after the Effective Date, provided that such information is either (i) disclosed in writing and marked "Confidential," or in a similar manner, to indicate its confidential nature, or (ii) if disclosed orally, is confirmed in writing as confidential within forty-five (45) days following such disclosure. Notwithstanding the foregoing, the Parties understand and agree that the marking and reduction to writing requirements of subsections (i) and (ii) above shall not apply to Confidential Information disclosed during the Pre-Agreement Period.

6.1 Confidential Information Exclusions. Notwithstanding the provisions of Section 6.0, the obligation of confidentiality shall not apply to information that the receiving Party can demonstrate:

- (a) is now in the public domain or which becomes generally available to the public through no fault of the receiving Party; or
- (b) is already known to, or in the possession of, the receiving Party prior to disclosure by the disclosing party as can be demonstrated by documentary evidence; or
- (c) is disclosed on a non-confidential basis from a Third Party having the right to make such a disclosure; or
- (d) is independently developed by the receiving Party (without the use of any Confidential Information) as can be demonstrated by competent documentary evidence.

6.2 Permitted Usage. Notwithstanding the provisions of Section 6.0 above, the receiving Party may use or disclose Confidential Information of the disclosing Party to the extent necessary to exercise the rights granted to it hereunder (provided it uses reasonable efforts to protect such information commensurate with the efforts used to protect its own information) in prosecuting or defending litigation, complying with applicable governmental regulations and/or submitting information to tax or other governmental authorities; provided that if the receiving Party is required by law to make any public disclosures of Confidential Information of the disclosing Party, to the extent it may legally do so, it will give reasonable advance notice to the disclosing Party of such disclosure and will use its reasonable efforts to secure confidential treatment of Confidential Information prior to its disclosure (whether through protective orders or otherwise).

7. WARRANTIES AND INDEMNITIES

7.0 Representations and Warranties.

(a) NEWLINK hereby represents and warrants that (i) it has the authority and right to enter into and perform this Agreement, and has taken all necessary corporate or other action and obtained all necessary approvals to do so, and (ii) its execution, delivery and performance of this Agreement does not and will not conflict with any other agreement to which it is or becomes a party or by which it is or becomes bound.

(b) CIHS hereby represents and warrants that to the best of its knowledge as of the Effective Date, all rights, interest, and title in and to the Invention has been properly assigned by all inventors thereof to HGTRI.

7.1 CIHS MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND EXPRESS OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT USE OF A LICENSED PRODUCT OR A PRODUCT MADE USING A LICENSED PROCESS WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER RIGHTS OF THIRD PARTIES.

7.2 Indemnities.

(a) NEWLINK agrees to indemnify, hold harmless and defend CIHS, HGTRI, and their respective trustees, officers, employees, students, and agents from and against all losses, liabilities, damages, costs and expenses (including without limitation, reasonable attorney's fees and other expenses of litigation) ("Liabilities") arising from any claims, demands, actions or other proceedings ("Claims") by any and all Third Parties for [*] arising out of (i) [*], under this Agreement and (ii) [*]; provided however, that NEWLINK shall not be obligated to indemnify, hold harmless and defend CIHS, HGTRI, and their respective trustees, officers, employees, students, and agents from and against any Liabilities arising from any Claims arising out of the [*] of CIHS, HGTRI, and their respective trustees, officers, employees, students, and agents.

(b) NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, WHATSOEVER, WHETHER GROUNDED IN TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, CONTRACT OR OTHERWISE. CIHS SHALL NOT HAVE [*] WITH RESPECT TO LICENSED PRODUCT(S).

(c) NEWLINK shall at all times comply, through insurance or self-insurance, with all statutory workers' compensation and employers' liability requirements covering any and all employees with respect to activities performed under this Agreement.

7.3 Insurance. In addition to the foregoing, NEWLINK shall maintain during the term of this Agreement, Comprehensive General Liability Insurance, including Products Liability Insurance, with reputable and financially secure insurance carrier(s) to cover the indemnity granted in Section 7.2. NEWLINK shall maintain an insurance policy that provides minimum limits of liability as follows: beginning on the Effective Date to the commencement of the first clinical trial of any Licensed Product, the minimum limit shall be two million dollars (\$2,000,000); beginning on the commencement of the first clinical trial of any Licensed Product to the commencement of the first Phase III clinical trial of any Licensed Product, the minimum limit shall increase to ten million dollars (\$10,000,000); and beginning on the first Phase III clinical trial of any Licensed Product to the termination or expiration of this Agreement, the minimum limit shall increase to twenty million dollars (\$20,000,000). Such insurance shall include CIHS, HGTRI, and their respective trustees, officers,

employees, students, and agents as additional insureds. Such insurance shall be written to cover claims incurred, discovered, manifested, or made during or after the expiration of this Agreement and should be placed with carriers with ratings of at least A- as rated by A.M. Best. Within fifteen (15) days of the Effective Date of this Agreement, NEWLINK shall furnish a Certificate of Insurance evidencing primary coverage and additional insured requirements and requiring thirty (30) days prior notice of cancellation or material change to CIHS. NEWLINK shall advise CIHS, in writing, that it maintains excess liability coverage (following form) over primary insurance for at least the minimum limit set forth above. All such insurance of NEWLINK shall be primary coverage.

8. TERM AND TERMINATION

8.0 Term. Unless previously terminated as herein provided, the term of this Agreement shall commence upon the Effective Date and expire on the date when NEWLINK has no further royalty obligations hereunder.

8.1 Termination.

(a) This Agreement may be terminated prior to its expiration under Section 8.0 under the following circumstances:

(i) If a Party commits material breach of this Agreement, the non-breaching Party at its option, may terminate this Agreement by giving the breaching Party written notice of its election to terminate as of a stated date, not less than forty-five (45) days from the date of the notice. Such notice shall state the nature of the defaults claimed by the non-breaching Party. The breaching Party may, during such forty-five (45) day period, or such longer period as may be specified in such notice, correct any default stated in such notice and if such default is corrected, this Agreement shall continue in full fame and effect as if such notice had not been given.

(ii) This Agreement may be terminated by NEWLINK, at will, at any time upon not less than sixty (60) days prior written notice to CIHS.

(b) NEWLINK may terminate its license with respect to a specific patent or patent application within the Licensed Patents, at will, at any time upon not less than ninety (90) days prior written notice to CIHS. In such event, the specified patent application or patent shall no

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longer be a Licensed Patent and NEWLINK shall retain an exclusive license to the remaining patents and patent applications within the Licensed Patents.

8.2 Effect of Termination.

(a) **Accrued Obligations.** Termination of this Agreement for any reason shall not release either Party hereto from any liability which, at the time of such termination, has already accrued to the other Party or which is attributable to a period prior to such termination nor preclude either Party from pursuing any rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

(b) **Termination of Agreement.** In the event of any early termination of this Agreement, whether by CIHS pursuant to Section 2.4(a) due to NEWLINK's failure to meet one or more of its diligence obligations, or by CIHS pursuant to Section 8.1(a)(i) due to NEWLINK's material breach, or by NEWLINK pursuant to Section 8.1(a)(ii), in each case:

(i) NEWLINK, its Affiliates and Sublicensees shall immediately cease all development and commercialization of Licensed Products, and all practice or use of the Licensed Patents and Licensed Technology; provided, however, that NEWLINK, its Affiliates, Sublicensees and distributors shall have the right to sell or otherwise distribute Licensed Products in their inventories or otherwise in their control as of such termination of this Agreement for a period not to exceed three (3) months from such termination.

(ii) NEWLINK shall return, or destroy, at CIHS's option, all Confidential Information of CIHS, including any copies of any Licensed Technology.

(c) **Termination of a patent within the Licensed Patents.** In the event of any early termination of NEWLINK's license to a particular patent and/or patent application within the Licensed Patents, whether by NEWLINK pursuant to Section 8.1(b), or by CIHS pursuant to Section 4.1, in each case:

(i) NEWLINK, its Affiliates and Sublicensees shall immediately cease all development and commercialization of Licensed Products relating to such patent or patent application, and all practice or use of such patent or patent application; provided, however, that NEWLINK, its Affiliates, Sublicensees and distributors shall have the right to sell or otherwise distribute Licensed Products relating to such patent or patent application that is in their inventories or otherwise in their control as of such termination of this Agreement for a period not to exceed three (3) months from such termination.

(ii) NEWLINK shall return, or destroy, at CIHS's option, all Confidential Information of CIHS, including any copies of any Licensed Technology relating to such patent or patent application, unless such Confidential Information or Licensed Technology also relates to patents or patent applications with respect to which NEWLINK still retains a license under this Agreement.

(d) **Termination of a field within the Field.** In the event of any termination of NEWLINK's license to a particular field within the Field, by CIHS pursuant to Section 2.4(b):

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(i) NEWLINK, its Affiliates and Sublicensees shall immediately cease all development and commercialization of Licensed Products in such field, and all practice or use of Licensed Patents and Licensed Technology in such field; provided, however, that NEWLINK, its Affiliates, Sublicensees and distributors shall have the right to sell or otherwise distribute Licensed Products in such field that is in their inventories or otherwise in their control as of such termination of this Agreement for a period not to exceed three (3) months from such termination.

(ii) NEWLINK shall return, or destroy, at CIHS's option, all Confidential Information of CIHS, including any copies of any Licensed Technology relating to field, unless such Confidential Information or Licensed Technology also relates to Licensed Patents, Licensed Technology or Licensed Products in a field with respect to which NEWLINK retains a license under this Agreement.

8.3 Survival. Articles 1, 5, 6, and 9, and Sections 2.5(b), 3.2-3.7, 4.5, 7.1, 7.2, 8.2 and 8.3 of this Agreement shall survive expiration or termination of this Agreement.

9. MISCELLANEOUS

9.0 Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered, sent by courier, sent by registered or certified mail, return receipt requested, postage prepaid, or sent via facsimile in each case to the respective address specified below, or such other address as may be specified in writing to the other Party hereto:

CIHS:	Central Iowa Health System 1200 Pleasant Street Des Moines, Iowa 50309 Attn: President Fax: 515-241-5994
with copies to:	Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304-1050 Attn: Kenneth A. Clark, Esq. Fax: (650) 493-6811
	Iowa Health System 1200 Pleasant Street Des Moines, Iowa 50309 Attn: General Counsel Fax: 515-241-4656
NEWLINK:	NEWLINK Genetics Corporation 2901 S. Loop Drive Ames, Iowa 50010 Attn: Chairman

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	Fax: 515-296-5557
with a copy to:	Cooley Godward, L.L.P. 380 Interlocken Crescent Suite 900 Broomfield, CO 80021-8023 Attn: James C. Linfield, Esq. Fax: (650) 493-6811

Any such notice mailed by registered or certified mail or air express shall be deemed to have been given when mailed, as evidenced by the date on the receipt retained by the sender. Either Party may change the address to which notices to it are to be given by notice as provided herein.

9.1 Force Majeure. Neither Party to this Agreement shall be liable for delay or failure in the performance of any of its obligations hereunder if such delay or failure is due to causes beyond its reasonable control, including, without limitation, acts of God, fires, earthquakes, strikes and labor disputes, acts of war, civil unrest, or intervention of any governmental authority, provided that the affected Party shall use reasonable efforts to remedy any such delay or failure.

9.2 Assignments. Except as provided in this Section 9.2, this Agreement may not be assigned by NEWLINK without the written prior consent of CIHS, which consent shall not be unreasonably withheld, provided that NEWLINK may assign this Agreement without CIHS' prior consent to an Affiliate or in connection with the sale or transfer of all or substantially all the assets of NEWLINK relating to the Agreement. CIHS may assign this Agreement at its discretion.

9.3 Injunctive Relief. The Parties acknowledges that the terms hereunder are necessary and reasonable to protect the Parties, and expressly agree that monetary damages may not be a sufficient remedy for any breach of this Agreement, and therefore the breaching Party will not oppose the non-breaching Party's requests for injunctive relief as a remedy for any such breach. In addition, the Parties agrees that they shall be entitled to seek temporary and permanent injunctive relief against any threatened violation of the terms of this Agreement or the continuation of any such violation in any court of competent jurisdiction, without the necessity of proving actual damages or the posting of any bond. For avoidance of doubt, any such equitable remedies shall be cumulative and not exclusive and are in addition to any other remedies, which either Party may have under this Agreement or applicable law.

9.4 Severability. In the event that any provisions of this Agreement are determined to be invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect without said provision. In such event, the parties shall in good faith negotiate an amendment providing a substitute clause for any provision declared invalid or unenforceable, which shall most nearly approximate the intent of the Parties in entering this Agreement.

1. Sale of Stock. The Company hereby agrees to sell to the Purchaser and the Purchaser hereby agrees to purchase an aggregate of [*] shares of the Company's Common Stock (the "Shares").
 2. Payment of Purchase Price. The purchase price for the Shares shall be deemed paid by Purchaser's grant of licenses to the Company pursuant to Section 2.0 of the License Agreement dated August 2, 2001 between Purchaser and the Company.
 3. Representations and Warranties of the Company. The Company represents and warrants to the Purchaser as follows:
 - (a) Organization and Standing. The Company is a corporation duly organized and validly existing under, and by virtue of, the laws of the State of Delaware and is in good standing under such laws. The Company has requisite corporate power and authority to own and operate its properties and assets, and to carry on its business as presently conducted. The Company is duly qualified to do business as a foreign corporation in each jurisdiction in which the failure to be so qualified will have a material adverse affect on the Company's business.
 - (b) Corporate Power; Authorization. The Company has all requisite legal and corporate power and authority to execute and deliver this Agreement and to issue the Common Stock sold under this Agreement. All corporate action on the part of the Company, its officers, directors and stockholders necessary for the authorization, execution, delivery and performance of this Agreement and the performance of all of the Company's obligations under this Agreement has been taken. The Shares, when issued in compliance with the provisions of this Agreement will be validly issued, fully paid and nonassessable.
 - (c) Capitalization. The authorized capital stock of the Company consists or will, upon the execution of the Agreement, consist of 12,000,000 shares of Common Stock and 3,000,000 shares of Preferred Stock, 1,600,000 of which is designated Series A Preferred Stock. Immediately prior to the execution of this Agreement, 5,198,200 shares of Common Stock and 420,000 shares of Series A Preferred Stock will be issued and outstanding. No other shares of capital stock will be outstanding. All of the issued and outstanding shares of Common Stock and Series A Preferred Stock are duly authorized, validly issued, fully paid and nonassessable, and were issued in compliance with applicable federal and state securities laws. Except for (i) the conversion privileges of the Series A Preferred Stock, (ii) 188,000 shares of Common Stock subject to issued options issued under the Company's 2000 Equity Incentive Plan, and (iii) 1,500,000 shares of Common Stock reserved for future issuance pursuant to the Company's Equity Incentive Plan and (iv) the rights provided in the Company's Investors' Rights Agreement, there are no other outstanding shares of capital stock or outstanding rights of first refusal, preemptive rights or other rights, options, warrants, conversion rights, or other
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agreements either directly or indirectly for the purchase or acquisition from the Company of any shares of its capital stock.

4. Representations and Warranties of the Purchaser. Purchaser represents and warrants to the Company as follows:
 - (a) Restricted Securities. Purchaser is aware that the Shares to be issued to Purchaser by the Company pursuant to this Agreement have not been registered under the Securities Act of 1933, as amended (the "Act"), and that the Shares are deemed to constitute "restricted securities" under Rule 144 promulgated under the Act.
 - (b) Accredited Investor. Purchaser is an accredited investor within the meaning of Regulation D prescribed by the Securities and Exchange Commission pursuant to the Act.
 - (c) Investment Experience. By virtue of such Purchaser's experience in evaluating and investing in private placement transactions of securities in companies similar to the Company, Purchaser has sufficient knowledge and experience in business and financial matters to evaluate the Company, its proposed activities and is capable of evaluating the merits and risks of such Purchaser's investment in the Company, Purchaser has the capacity to protect such Purchaser's own interests in connection with the purchase of the Shares by virtue of the business or financial expertise of any professional advisors to Purchaser who are unaffiliated with and who are not compensated by the Company or any of its affiliates, directly or indirectly. Purchaser has the ability to accept the high risk and lack of liquidity inherent in this type of investment.
 - (d) Investment Intent. Purchaser is acquiring the Securities for investment for such Purchaser's own account and not with a view to, or for resale in connection with, any distribution thereof. Purchaser understands that the Securities have not been registered under the Act by reason of a specific exemption from the registration provisions of the Act that depends upon, among other things, the bona fide nature of the investment intent as expressed herein.
 - (e) Rule 144. Purchaser understands that the exemption from registration under Rule 144 will not be available for at least two years from the date of receipt of the Shares unless at least one year from the date of receipt (i) a public trading market then exists for the Common Stock of the Company, (ii) adequate information concerning the Company is then available to the public, and (iii) other terms and conditions of Rule 144 are complied with; and that any sale of the Shares may be made only in limited amounts in accordance with such terms and conditions and that after ninety days after the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Shares may be resold by persons other than affiliates in reliance on Rule 144 without compliance with paragraphs (c), (d), (e) and (h) thereof, and by affiliates without compliance with paragraph (d) thereof.
 - (f) Knowledge of Company, Company Information. Purchaser is familiar with the Company, the nature of its business, its financial prospects and the merits and risks of an investment in the Company, and has the capacity to protect its own interests. Purchaser has had an opportunity to discuss the Company's business, management and financial affairs with directors, officers and management of the Company. Purchaser has also had the opportunity to ask questions of, and receive answers from, the Company and its management regarding the terms and conditions of this investment.

- (g) Additional Capital. Purchaser understands that the Company may need to raise additional financing to support expansion, develop new or enhanced applications and services, respond to competitive pressures, acquire complementary business or technologies or take advantage of unanticipated opportunities. Purchaser understands that the Company may need to raise additional funds by selling debt or equity securities, by entering into strategic relationships or through other arrangements. Purchaser understands that such financing may be dilutive to existing stockholders.

5. Purchaser's Right of First Refusal.

(a) Right of First Refusal. The Company hereby grants to Purchaser, on the terms set forth in this Section 5, the right of first refusal to purchase all or any part of such Purchaser's pro rata share of the New Securities (as defined in Section 5(b) which the Company may, from time to time, propose to sell and issue. The Purchaser may purchase said New Securities on the same terms and at the same price at which the Company proposes to sell the New Securities. For the purposes of this right of first refusal, an Purchaser's pro rata share of the New Securities is a fraction, the numerator of which is the total number of shares of Common Stock held by such Purchaser (on an as converted basis) and the denominator of which is the total number of shares of the Company's Common Stock outstanding (including any shares of Common Stock issuable upon conversion of or exercise of, as the case may be, Preferred Stock, options, warrants or other convertible securities) immediately prior to the issuance of the New Securities.

(b) New Securities. "New Securities" shall mean any capital stock of the Company, whether now authorized or not, and any rights, options or warrants to purchase said capital stock, and securities of any type whatsoever that are, or may become, convertible into said capital stock; provided that New Securities does not include (i) the Shares, (ii) Common Stock issued upon conversion of the Company's Preferred Stock, (iii) securities offered pursuant to a registration statement filed under the Act, (iv) securities issued pursuant to a merger, consolidation, strategic alliance, acquisition or similar business combination, (v) securities issued or issuable to officers, directors, employees, advisors, consultants or service providers of the Company pursuant to any plan or arrangement approved by the Board of Directors of the Company, (vi) securities issued pursuant to agreements to license technology and/or provide sponsored research approved by the Board of Directors of the Company (vii) securities issued in connection with equipment leasing or equipment financing, real property leasing or loan arrangement or debt financing from a bank or similar financial or lending institution arrangements approved by the Board of Directors of the Company, (viii) shares of Common Stock issued in connection with any stock split, stock dividend or recapitalization by the Company and (ix) securities issued in connection with strategic transactions involving the Company and other entities, including (a) joint ventures, manufacturing, marketing or distribution arrangement or (b) technology transfer or development arrangements.

(c) Notice of Proposed Issuance. In the event the Company proposes to undertake an issuance of New Securities, it shall give to the Purchaser written notice (the "Notice") of its intention, describing the type of New Securities, the price, the terms upon which the Company proposes to issue the same, the date of the proposed issuance and a statement as to the number of days from receipt of such Notice within which the Purchaser must respond to such Notice. The Purchaser shall have fifteen (15) days from the date of receipt of the Notice to purchase any or all of its pro rata share (as defined in Section 5(a) above) of the New Securities for the price and upon the terms specified in the Notice by giving written notice to the Company and stating therein the quantity of New Securities to be purchased and forwarding payment for such New

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Securities to the Company if immediate payment is required by such terms, or in any event no later than the date of the proposed issuance as set forth in the Notice.

(d) Transferability of Right of First Refusal. The right of first refusal granted under this Section 5 may be assigned by the Purchaser to a transferee or assignee (a "Transferee") in connection with any transfer or assignment of at least 50,000 Shares to any parent corporation or entity, subsidiary or affiliate of the Purchaser.

(e) Termination of Rights. The right of first refusal granted under this Section 5 shall expire upon the closing of the Company's first firm commitment underwritten public offering pursuant to an effective registration statement filed by the Company under the Act.

6. Registration Rights.

(a) Company Obligation. If the Company shall determine to register any of its securities either for its own account or the account of a shareholder(s) exercising demand registration rights, other than a registration relating solely to employee benefit plans, or a registration relating solely to a transaction pursuant to Rule 145 promulgated under the Act or a registration on any registration form which does not permit secondary sales or does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Shares, the Company will promptly give the Purchaser written notice thereof and include in such registration (and any related qualification under blue sky laws), and in any underwriting involved therein, the number of shares specified in a written request made by the Purchaser within fifteen (15) days after receipt of such written notice from the Corporation, except as set forth in Section 6(b) below.

(b) Underwritten Public Offering. If the registration for which the Company gives notice is for a registered public offering involving an underwriting, the right of Purchaser to registration shall be conditioned upon the Purchaser's participation in such underwriting and the inclusion of such Purchaser's Shares in the underwriting pursuant to an underwriting agreement in customary form with the underwriter or underwriters selected by the Company. Notwithstanding any other provision of this Section, if the underwriter reasonable determines that marketing factors require a limitation on the number of shares to be underwritten and underwriter may exclude some or all of the Shares with the number of shares that may be included in the registration and underwriting being allocated among the Purchaser and all other shareholders entitled to have securities included in such registration in proportion, as nearly as practicable, to the respective amounts of securities which they had requested to be included in such registration.

(c) Expenses. All expenses of the registration including the expense of one attorney for the selling shareholders (such attorney's expense not to exceed \$15,000) shall be borne by the Company, except underwriting discounts and selling commissions applicable to the sale of any Purchaser's Shares and any other securities of the Corporation being sold in the same registration by other shareholders, which shall be borne by the Purchaser and such other shareholders pro rata on the basis of the number of their shares registered.

(d) Transferability of Registration Rights. The registration rights granted under this Section 6 may be assigned by the Purchaser to a Transferee in connection with any transfer or assignment of at least 50,000 Shares to any parent corporation or entity, subsidiary or affiliate of the Purchaser.

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(e) Termination of Registration Rights. The registration rights granted under this Section 6 shall terminate as to the Purchaser or a Transferee (a "Holder") when such Holder is eligible to sell all of its shares that can be registered under this Agreement within any 90 day period in reliance

7. Financial Information. The Company will provide the Purchaser with reports and provide access for Purchaser as set forth below.

(a) As soon as practicable after the end of each fiscal year, and in any event within one hundred twenty (120) days thereafter, consolidated balance sheets of the Company and its subsidiaries, if any, as of the end of such fiscal year, and unaudited consolidated statements of income and consolidated statements of changes in financial position of the Company and its subsidiaries, if any, for such year, prepared in accordance with generally accepted accounting principles and setting forth in each case in comparative form the figures for the previous fiscal year (or, at the election of the Company, setting forth in comparative form the budgeted figures for the fiscal year then reported), all in reasonable detail.

(b) As soon as practicable after the end of each quarter, and in any event within sixty (60) days after each quarterly accounting period, an unaudited quarterly report including a balance sheet, profit and loss statement and cash flow analysis (prepared in accordance with generally accepted accounting principles other than for accompanying notes and subject to changes resulting from year-end audit adjustments).

(c) The Company shall permit each Purchaser, at such Purchaser's expense, to visit and inspect the Company's properties, to examine its books of account and records and to discuss the Company's affairs, finances and accounts with its officers, all at such reasonable times as may be requested by the Investor.

(d) Anything in Section 7(c) to the contrary notwithstanding, the Purchaser or transferee of the Purchaser by reason of this Agreement shall not have access to any trade secrets or classified information of the Company. The Purchaser hereby agrees to hold in confidence and trust and not to misuse or disclose any confidential information provided pursuant to Section 7(c) and any transferee of must agree, in writing, to the same. The Company shall not be required to comply with this Section 7(c) in respect of the Purchaser or transferee of the Purchaser whom the Company reasonably determines to be a competitor or an officer, employee, director or greater than 5% shareholder of a competitor or to the extent compliance would result in disclosure of trade secrets.

(e) Termination of Covenants. The covenants set forth in this Section 7 shall terminate and be of no further force or effect upon the closing of the Company's initial underwritten public offering pursuant to an effective registration statement filed by the Company under the Act.

8. Legends. The share certificate evidencing the Shares issued hereunder shall be endorsed with the following legends (in addition to any legend required under applicable state securities laws):

(a) THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE

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OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISPOSITION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

(b) THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS PURSUANT TO THE COMPANY'S BYLAWS. SUCH BYLAW, AMONG OTHER THINGS, RESTRICTS CERTAIN RIGHTS WITH RESPECT TO THE SALE AND TRANSFER OF THE SHARES AND OTHERWISE ENCUMBERS THE SHARES REPRESENTED HEREBY. COPIES OF THE BYLAWS MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY.

(c) Any legend required to be placed thereon by the Delaware Commissioner of Corporations or any other applicable state securities laws.

9. Restrictions on Transfer.

(a) Without in any way limiting the foregoing, Purchaser further agrees that Purchaser shall in no event make any disposition of all or any portion of the Shares which Purchaser is being issued unless and until: (i) there is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with said registration statement; or (ii) (A) The transferee has agreed in writing to be bound by the terms of this Agreement, (B) Purchaser shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (C) if reasonably requested by the Company, Purchaser shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of the Shares under the Act. In addition, Purchaser agrees that any such disposition shall be made in accordance with the provisions of the Company's Bylaws, provided however that the Company hereby waives any right of first refusal pursuant to Article XIV of the Company's Bylaws with respect to any transfer of the Shares by Purchaser to any parent corporation or entity, subsidiary or affiliate of Purchaser.

(b) The Company shall not be required (i) to transfer on its books any Shares which shall have been sold or transferred in violation of any of the provisions set forth in the Section 9(a) or (ii) to treat as owner of such Shares or to accord the right to vote as such owner or to pay dividends to any transferee to whom such Shares shall have been so transferred.

(c) Purchaser hereby agrees that for a period of not less than 180 days following the effective date of the first registration statement of the Company covering Common Stock (or other securities) to be sold on its behalf in an underwritten public offering, Purchaser shall not, to the extent requested by the Company or any underwriter, sell or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any Common Stock of the Company held by Purchaser at any time during such period except Common Stock included in such registration.

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(d) In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Common Stock held by Purchaser (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

10. Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be appropriately adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made by the Company after the date of this Agreement.

11. Tax Consequences. The Purchaser has reviewed with the Purchaser's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Purchaser understands that the Purchaser (and not the Company) shall be responsible for the Purchaser's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

12. General Provisions.

(a) This Agreement shall be governed by the laws of the State of Delaware. This Agreement represents the entire agreement between the parties with respect to the purchase of Common Stock by the Purchaser and may only be modified, amended or waived in writing signed by both parties.

(b) Any notice, demand or request required or permitted to be given by either the Company or the Purchaser pursuant to the terms of this Agreement shall be in writing and shall be deemed given when delivered personally or deposited in the U.S. Mail, First Class with postage prepaid, and addressed to the parties at the addresses of the parties set forth at the end of this Agreement or such other address as a party may request by notifying the other in writing.

(c) Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors and assigns of the parties, hereto.

(d) Either party's failure to enforce any provision or provisions of this Agreement shall not in any way be construed as a waiver of any such provision or provisions, nor prevent that party thereafter from enforcing each and every other provision of this Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party's right to assert all other legal remedies available to it under the circumstances.

(e) The Purchaser agrees upon request to execute any further documents or instruments necessary or desirable to carry out the purposes or intent of this Agreement.

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the day and year first set forth above.

COMPANY

NEWLINK GENETICS CORPORATION
a Delaware corporation

/s/Charles Link, Jr.
(Signature)

Charles Link, Jr.
(Print Name)

Chairman
(Title)

2901 S. Loop Drive
(Address)

Ames, IA 50010
(City, State Zip)

PURCHASER

STODDARD CANCER RESEARCH INST.
a d.b.a. of Central Iowa Health System

/s/ Eric Crowell
(Signature)

Eric Crowell
(Print Name)

President
(Include Title if signing on behalf of an entity)

1200 Pleasant St.
(Address)

Des Moines, IA 50309
(City, State Zip)

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

National Institutes of Health
National Cancer Institute
Technology Transfer Center
Executive Plaza South, Room 45C
6120 Executive Blvd, MSC 7182
Bethesda MD 20892-7182
(301) 496-0477
(301) 402-2117 Fax

May 7, 2007

Dr. Charles Link
NewLink Genetics Corporation
Suite 3900
2901 South Loop Drive
Ames, IA 50010 USA

Re: Letter of Intent for a Cooperative Research and Development Agreement #02166 NCI Principal Investigators: Drs. Sherry S. Ansher, Lee Jia and Howard Streicher Collaborator Investigators: Drs. Charles Link and Nicholas Vahanian
Title: Preclinical and Clinical Development of 1-Methyl [d]-tryptophan as an Anticancer Agent

Dear Dr. Link:

It is my understanding that a cooperative research and development project between the parties referenced below is being considered. Accordingly, until the formal Cooperative Research and Development Agreement (CRADA) is reviewed by the CRADA Subcommittee and approved by the Director, National Cancer Institute (NCI), this Letter is offered to permit the joint research to commence. However, in the case of human clinical trials which are a part of the subject CRADA, the parties agree that all such trials which may begin prior to the execution of the formal CRADA shall be preceded by the appropriate regulatory approvals (U.S. Food and Drug Administration IND approval or international equivalents thereof).

It is acknowledged by the parties below that cooperative research pursuant to the Research Plan, attached as Appendix A, will be conducted informally by the NCI Principal Investigators and Collaborator pending formal approval of the CRADA. It is further acknowledged that patentable inventions may be made by NCI employees and employees of the Collaborator. Pursuant to its authority under the Federal Technology Transfer Act of 1986, as amended, NCI agrees that should this CRADA be approved, it will have retroactive effect to the date that the last party has executed this Letter for any inventions that may be made under this Research Plan. NCI further agrees that should this CRADA be approved it will have retroactive effect to the date that the last party has executed this Letter for confidentiality obligations specified in the NIH Model CRADA. The Model CRADA for Extramural-PHS Clinical Research (2005) provisions for the protection of proprietary information are incorporated in this Letter by reference and are considered controlling during the period of informal joint research. These provisions include, but

are not limited to Articles 2.0 and 8. The Model CRADA for Extramural-PHS Clinical Research (2005) is attached as Appendix B and the CTEP Exceptions or Modifications to this CRADA (6/27/06) is attached as Appendix C.

You understand, however, that this Letter is not a commitment on the part of either party to enter into a CRADA. Further, this Letter is effective for a term not to exceed six (6) months. The six month term may be extended, provided the CRADA is under active negotiation and the collaborative research is continuing. Assuming that the necessary approvals are forthcoming, we look forward to a successful collaboration.

Sincerely,

/s/ Kathleen Carroll for

Karen Maurey, M.S.
Chief, Technology Transfer Center, NCI

AGREED AND ACCEPTED:

National Cancer Institute

NewLink Genetics Corporation

/s/Anna D. Barker

Anna D. Barker, Ph.D.
Deputy Director

/s/ Charles Link

Attachments: Appendix A - Letter of Intent Research Plan
 Appendix B - Model CRADA for Extramural-PHS Clinical Research (2005)
 Appendix C - CTEP Exceptions or Modifications to this CRADA (6/27/06)

Appendix A

Letter of Intent Research Plan

Letter of Intent for Proposed CRADA #2166

APPENDIX A: LETTER OF INTENT RESEARCH PLAN

Pre-Clinical and Clinical Development of 1-Methyl-[d]-Tryptophan as an Anti-Cancer Agent

National Cancer Institute (NCI) Investigators:

Dr. Sherry Ansher
 Dr. Lee Jia
 Dr. Howard Streicher

NewLink Genetics Corporation Investigators:

Dr. Charles Link
 Dr. Nicholas Vahanian

Term of Proposed CRADA:

Four (4) years from the date of CRADA execution

1. RESEARCH GOALS OF PROPOSED CRADA

The overall goal of this proposed CRADA is to collaborate with NewLink Genetics Corporation (hereafter NewLink) on the pre-clinical and clinical development of 1-methyl-D-tryptophan (also known as 1MT, NSC721782, or Investigational Agent) for the treatment of cancers that overexpress indoleamine 2,3-dioxygenase (IDO) and other cancers in which IDO plays a critical immunological role.

The Division of Cancer Treatment and Diagnosis (DCTD), NCI and NewLink will both provide resources and expertise for the pre-clinical development of 1MT and will work together towards the successful clinical development of 1MT as a safe and effective novel pharmaceutical compound. The DCTD will provide expertise in designing, implementing and monitoring Phase 0, Phase 1 and Phase 2 clinical trials through its intramural and extramural clinical trials network. Additionally, the DCTD will work jointly with NewLink to obtain all the necessary regulatory approval by the U.S. Food and Drug Administration (FDA) for 1MT as an anti-cancer agent. NewLink will provide expertise in the development, formulation and production of 1MT. The Parties will work together in the design, implementation and monitoring of the clinical trials planned under this CRADA as well as all regulatory aspects and New Drug Application (NDA) filings as necessary for marketing approval for 1MT as an anti-cancer agent.

2. SCIENTIFIC BACKGROUND

The enzyme IDO catalyzes tryptophan degradation. IDO can be a potent effector of immunosuppression and of tolerance induction in certain settings; for example, expression of IDO in the placenta maintains maternal tolerance towards the fetus. Tumors create a state of immunologic unresponsiveness (tolerance) toward their own antigens, which allows tumors to escape the host's immune system. This also imposes a barrier to effective anti-tumor immunotherapy. One molecular mechanism contributing to this tolerance is expression of the immunosuppressive enzyme IDO, leading to inhibition of T-cell response.

Expression of IDO by human and mouse antigen-presenting cells inhibits T cell mediated immune responses *in vitro* and *in vivo*. Tumor cells transfected with IDO become immunosuppressive *in vivo*, and expression of IDO has been reported in tumor cells from a variety of human tumors. IDO is also expressed by a population of host antigen-presenting cells (dendritic cells) found in tumor-draining lymph nodes of melanoma, breast cancer, and a variety of other tumors, which may act to create tolerance to tumor antigens. Therefore, IDO may be a primary molecular target for cancer immunotherapy and inhibition of the IDO pathway may assist in breaking tumor tolerance.

Studies have shown that the small-molecule 1MT possesses immune-enhancing activity by inhibiting IDO in a variety of animal models. 1MT can inhibit IDO enzyme activity *in vitro* and can prevent IDO-mediated immunosuppression *in vivo*. 1MT has also been shown to be synergistic with a number of commonly used chemotherapeutic agents. Thus, 1MT may potentially be used as a novel immune modulator in cancer immunotherapy.

3. PRE-CLINICAL DEVELOPMENT OF 1MT

1MT was originally submitted to the NCI's Rapid Access to Intervention Development (RAID) program by Dr. David Munn, Medical College of Georgia, and Dr. Scott Antonia, H. Lee Moffitt Cancer Center, and the application was approved by NCI in April 2001. Based upon promising *in vitro* and *in vivo* data, 1MT was then reviewed by the NCI's Drug Development Group (DDG) and was approved by the DDG in December 2003 for further pre-clinical development at DDG level IIA. In January 2006 the DDG approved 1MT at level IIB/III to start IND-directed toxicology studies and to subsequently enter into NCI sponsored clinical trials. In October 2005, University of Georgia granted NewLink a worldwide, exclusive license to patents covering therapeutic uses of 1MT as an immunomodulator for any and all medical applications.

The following sections summarize the pre-clinical studies conducted by the NCI prior to this CRADA Letter of Intent.

[*]

4. BACKGROUND OF THE COLLABORATOR

NewLink is a biopharmaceutical company applying innovative techniques in cancer biology to produce new diagnostic and therapeutic agents for cancer patients. NewLink is privately held and was incorporated in June 1999. The core of NewLink is a Cancer Vaccine Development Division that exists to accelerate the deployment of oncology pharmaceuticals, including HyperAcute™ Vaccines, into clinical testing and commercialization. NewLink has recently acquired a worldwide, exclusive license to patents covering therapeutic uses of 1MT as [*] for [*], and its OncoRx Division undertakes the development 1MT. 1MT is envisioned as [*] and as an adjuvant therapy for use in combination with immuno-modulating therapies for the purpose of enhancing the effects of the immuno-modulating therapy. NewLink expects to start 1MT Phase 1 and Phase 2 clinical trials in [*], subject to the filing of one or more NewLink-sponsored INDs to support such studies.

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5. DETAILED DESCRIPTION OF THE RESEARCH PLAN

The Division of Cancer Treatment and Diagnosis (DCTD), NCI and NewLink are interested in the evaluation of 1MT in a pre-clinical and clinical development program that includes various tumor types that over-express IDO and other cancers in which IDO plays a critical immunological role. The pre-clinical work will include IND-directed toxicology studies and formulation studies. In addition, if NCI deems it necessary, NCI may conduct pre-clinical research aimed at enhancing the understanding of the mechanism of action of 1MT and its targets and optimizing its clinical development program. NCI's work may also include such activities as the development of assays to detect target modulation, biomarker studies, and pharmacodynamic analyses performed in conjunction with the DCTD-sponsored clinical studies. DCTD will sponsor 1MT Phase 0, Phase 1 and Phase 2 clinical trials that will help determine the safety, efficacy and the potential spectrum of 1MT's anti-tumor activity. DCTD and NewLink are also interested in evaluating 1MT in combination with other novel investigational agents or cancer therapeutics such as vaccines, chemotherapy and radiation therapy in clinical trials.

6. RESPECTIVE CONTRIBUTIONS OF THE PARTIES

A. Joint Responsibilities

1. Steering Committee and Communication Plan

A Steering Committee will be employed by the Parties to exchange information and data and to discuss and to plan the proposed and ongoing clinical research. The Steering Committee shall be composed of the CRADA Principal Investigators from NCI and NewLink. In addition, other NCI and NewLink staff with expertise in toxicology, pharmacology, pharmaceutical development, project management and other disciplines as pertinent to the current development stage of the Investigational Agent at the time of a meeting may participate in the meetings of the Steering Committee. Both Parties shall report regularly to the Steering Committee on the progress of the clinical research and development efforts covered by this CRADA, will review the current progress, and will make any required decisions. The routes of communication, format of written minutes, etc. will be determined at the Steering Committee meetings and will be driven by the needs of the project. The Parties have been meeting regularly prior to the execution of this CRADA Letter of Intent, and will continue to do so.

The Steering Committee will function under the oversight of Co-Chairs, one from NCI and one from the Collaborator. NCI's Steering Committee Co-Chair will be appointed by the DCTD Division Director and report to the DCTD Division Director or his or her designee. Steering Committee meeting minutes summarizing all key decisions and issues under discussion will be provided to all the Steering Committee members and to the DCTD Division Director within [*] of each meeting. Steering Committee decisions will be made [*].

2. DCTD's preclinical and ancillary studies shall be conducted [*], as per [*].

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3. The DCTD and NewLink will explore the clinical utility of 1MT for various cancers. As sensitive tumor types are identified, it will be important to develop combinations of 1MT and other active anti-cancer agents and to compare 1MT and 1MT combinations with standard therapy for these tumor types. Adjuvant studies may be important in diseases where 1MT has activity and where there is a high risk of recurrence following initial primary therapy.

4. Both Parties shall collaborate in the collection and analysis of data generated under the Research Plan.

5. Both Parties will work closely together to ensure that the pre-clinical and clinical studies move forward expeditiously.

6. Subject to the obligations of the Parties to maintain the data under this CRADA as confidential and proprietary, the Parties may publicly disclose the results of their research under the circumstances set forth in the model CRADA.

7. When pre-clinical studies and/or a CRADA clinical protocol involves either [*] or involves [*], the NCI, NewLink [*] will jointly determine a reasonable and appropriate mechanism for intellectual property and data access and sharing prior to initiation of the pre-clinical studies and/or the clinical trial.
8. For activities conducted pursuant to this CRADA in the United States of America, both Parties agree to comply with all appropriate DHHS regulations relating to Human Subjects Use, all U.S. Department of Agriculture regulations, and all Public Health Service policies relating to the use and care of laboratory animals. For activities conducted pursuant to this CRADA outside of the United States of America, both Parties shall conduct such in accordance with GLPs and all applicable rules, regulations and statutes, both local and national, governing such activity in that country.
9. The Parties acknowledge that [*] means any [*] that is either readily usable as a [*] or is [*] that will be useful to [*] in developing [*] (rather than useful [*] or [*]). A [*] may simultaneously be a [*] and be the essence of a [*], or [*] (or an integral component of such [*]). For the purposes of this CRADA, [*] shall include, but not be limited to, a [*]. If NewLink elects to request [*] that is a [*], such [*] will ensure, as appropriate for the circumstances, that (a) the [*] will undertake to make the [*] on a [*] to [*] for [*] under [*], such [*], or (b) [*] the right to make the [*] on a [*] to [*] for [*] purposes under [*].

B. NewLink Responsibilities

1. Following execution of the CRADA, NewLink will provide [*] funding for pre-clinical studies including the IND-directed toxicity studies and formulation studies which will be conducted by [*]. The exact amount of funding and the payment schedule will be agreed upon and addressed in an Appendix B to the executed CRADA.

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2. Following CRADA execution, NewLink will be responsible for the [*] cost of GMP-grade 1MT in current [*] inventories manufactured to support pre-clinical studies, NCI-sponsored [*] clinical trials, and NewLink-sponsored [*] clinical trials. The exact amount of funding and the payment schedule will be agreed upon and addressed in an Appendix B to the executed CRADA.

If additional formulated 1MT is required for clinical studies under this CRADA Research Plan, NewLink will be responsible for the provision and costs of such extra supply of formulated and acceptably labeled 1MT. NewLink may elect to produce bulk 1MT and formulated 1MT through contractors other than established [*] contractors in order to obtain the most competitive pricing. NewLink will then be responsible for subsequent payment of such contractors, and [*] will have no obligations with respect to such contractors. If NewLink elects to perform any portion of this CRADA Research Plan through a contractor or consultant, NewLink shall incorporate into such contracts all provisions necessary to ensure that the work of the contractor or consultant is governed by the terms of the CRADA, including, but not limited to, a provision for the assignment of inventions of the contractor or consultant to NewLink; such inventions shall be deemed [*] of NewLink. In addition, NewLink will ensure that any contractor or consultant is obligated to maintain [*] Confidential Information regarding 1MT manufacturing and formulation in confidence at least to the extent provided for by the terms of the CRADA.

Following the use of [*] supplies of 1MT, NewLink will provide 1MT to [*] for use by [*] in [*] studies, studies designed to [*] of 1MT, and other studies relevant to the development of 1MT as provided in the Research Plan.

3. NewLink will prepare and submit to the FDA an Investigational New Drug Application (IND) for NewLink sponsored clinical studies of 1MT, which will cross-reference the DCTD IND.
4. NewLink agrees to permit DCTD to supply formulated 1MT for all clinical trials set forth in this CRADA. This includes:
 - Provision of appropriately packaged and labeled 1MT for all NCI-sponsored clinical studies;
 - Supply of 1MT for compassionate use, as described in the NCI Investigator Handbook; and
 - Supply of 1MT for, and any resources necessary for the management of, Group C distribution, as described in the NCI Investigator Handbook. Group C distribution shall be initiated if such action is justified by clinical results and is feasible based on adequate 1MT supply, such that NewLink's NDA efforts are not negatively impacted.

NewLink agrees to supply 1MT, or to provide unformulated analytical grade 1MT or metabolites, if available, to DCTD for DCTD to provide to DCTD intramural and extramural investigators for the development of analytical assays or ancillary

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correlative studies conducted in conjunction with DCTD-approved protocols. NewLink also agrees to provide 1MT for distribution for pre-clinical studies designed to enhance the basic understanding and development of 1MT. These will include pre-clinical studies designed to support clinical trials in [*]; pre-clinical [*] studies to provide data in support of a clinical trial; and other pertinent requests.

5. Upon CRADA execution, NewLink will provide resources for data collection and management, beyond that normally carried out by the DCTD as set forth in the CRADA for CTEP-sponsored studies, if NewLink desires such data collection and management. This would include the collection of the data required to submit an NDA to the FDA.
6. Upon CRADA execution, NewLink may provide funds for partial support of the DCTD-sponsored clinical trials and IND.
7. Upon CRADA execution, NewLink will provide funds for travel by DCTD staff to attend meetings sponsored by NewLink concerning 1MT clinical trials, such funds not to exceed [*] per year of the term of the CRADA.

8. NewLink intends and will use reasonable efforts to prepare and submit an NDA to the FDA expeditiously when justified by clinical studies, with the object of obtaining pharmaceutical regulatory approval for the commercial marketing of 1MT.
9. NewLink may sponsor its own clinical trials using 1MT. Such Collaborator-sponsored trials are outside the scope of this CRADA. For these clinical trials, NewLink will maintain possession and control of the clinical trial results. NewLink will permit DCTD to review and use the results for DCTD-sponsored clinical trials which are under the CRADA.
10. NewLink will update DCTD on the progress of its preclinical studies of 1MT to help ensure optimal experimental designs and avoid duplication.

C. NCI Responsibilities

I. Division of Cancer Treatment and Diagnosis, NCI

1. DCTD will develop and implement its preclinical/pharmacodynamic program for 1MT. DCTD also may conduct [*] studies to [*] 1MT. DCTD will update Collaborator regarding progress and findings to help ensure optimal experimental designs and avoid duplication.
2. DCTD will conduct [*] studies in [*], and [*] studies using existing supplies of 1MT. As stated in B(1) above, upon execution of the CRADA, NewLink will be responsible for partial costs associated with such studies.
3. DCTD will provide GMP-grade 1MT for [*] Phase 0 clinical studies, initial [*] Phase 1 clinical studies, and [*] Phase 1 clinical trials. As stated in [*], upon execution of

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the CRADA, [*] will be responsible for the costs associated with the drug production for such clinical studies.

4. The DCTD, as sponsor, will prepare and submit to the FDA an IND for 1MT for NCI-sponsored clinical studies. DCTD will permit NewLink to participate in DCTD's IND preparation process.
5. The DCTD will collaborate solely with NewLink for 1MT development, and will assist NewLink in all aspects of the regulatory approval process, so long as NewLink is pursuing clinical development of 1MT.
6. To the extent permitted by law, the DCTD will maintain the DCTD-sponsored IND, including protocols and other supporting information relative to 1MT as an anti-cancer agent in DCTD's possession and control, as proprietary and confidential, and make it available exclusively to NewLink. The DCTD will permit NewLink to review, cross-reference and use the IND in conducting clinical trials and in fulfilling all of the requirements necessary for obtaining FDA approval to market 1MT as an anti-cancer agent.
7. To the extent permitted by law, the DCTD will maintain the clinical data, results and raw data from all new studies developed under this proposed CRADA in its possession and control, as proprietary and confidential, and make them available exclusively to NewLink for use in obtaining approval for the commercial marketing of 1MT as an anti-cancer agent, so long as NewLink is pursuing commercial development for 1MT.
8. The DCTD will solicit protocol Letters of Intent (LOI) from the investigators in the DCTD's clinical trials network as appropriate.

The Protocol Review Committee (PRC), of the DCTD, will:

- Evaluate the rationale of each LOI received at the DCTD;
- Review the LOIs for study design, including dose, schedule and comparison groups, if relevant, in order to address any pertinent scientific questions;
- Examine the characteristics of the patient population to be studied;
- Assess the feasibility of the projected accrual, including the ability of each investigator to accrue the appropriate patient population in a timely manner;
- Review competing studies of the investigator in the specified disease(s);
- Provide investigator(s) with consensus review(s) of the PRC's evaluation to be used to revise the protocol;

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· Provide a copy of the consensus review to NewLink. All CTEP approved clinical LOIs will be sent by NCI to NewLink. NewLink will provide NCI with its approval or disapproval within [*] of receiving the CTEP approved clinical LOIs. Only LOIs that have been approved by both the PRC and NewLink will lead to the submission of full study protocols.

The protocols received from investigators in response to the fully approved LOIs will be reviewed and evaluated by the PRC and by NewLink. The PRC will:

- Evaluate each protocol from agent, disease, statistical and regulatory perspectives in order to ensure that the study design that was approved by the PRC at the LOI stage is carried out.

Provide each clinical research protocol received by DCTD to NewLink for review and comment approximately [*] before it is reviewed by the PRC of CTEP. Comments from NewLink received by CTEP before the PRC meeting will be discussed by the PRC, will be given due consideration, and will be incorporated into the protocol, absent good cause. Comments from either NewLink or the CTEP staff that are agreed upon in the PRC meeting will be formatted as a consensus review, which is returned to the investigator for necessary and/or suggested changes before the protocol can be given final approval and submitted to the FDA. In addition, the PRC will review any correlative laboratory studies, solicited from investigators, to address cellular pharmacological and/or pharmacokinetics questions as necessary.

9. The DCTD will evaluate each of the active studies as they progress to ensure that the appropriate questions are being addressed and to ensure that the studies are modified as required based on the developing data. The DCTD will utilize its existing procedures and mechanisms to follow the clinical studies to ensure that all studies meet the pertinent FDA regulations.

II. Experimental Immunology Branch, Center for Cancer Research, NCI

[*] studies such as [*] in [*] will be conducted in the Experimental Immunology Branch under the direction of Dr. Gene Shearer.

7. Intellectual Property of the Parties:

NCI Patents and Patent Applications: [*]

NewLink has obtained a worldwide, exclusive license to the following patents covering [*] for [*] from the University of Georgia.

[*]

In addition, a number of patent applications corresponding to the above patent applications and patents have been filed in countries other than the U.S.

Appendix B

NIH Model CRADA for Extramural-PHS Clinical Research (version 2005)

PUBLIC HEALTH SERVICE

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT FOR EXTRAMURAL-PHS CLINICAL RESEARCH

This Agreement is based on the model Cooperative Research and Development Agreement (“CRADA”) adopted by the U.S. Public Health Service (“PHS”) Technology Transfer Policy Board for use by components of the National Institutes of Health (“NIH”), the Centers for Disease Control and Prevention (“CDC”), and the Food and Drug Administration (“FDA”), which are agencies of the PHS within the Department of Health and Human Services (“HHS”).

This Cover Page identifies the Parties to this CRADA:

The U.S. Department of Health and Human Services, as represented by
[Insert the full name of the ICD]
an Institute, Center, or Division (hereinafter referred to as the “ICD”) of the
[INSERT as appropriate: NIH, CDC, or FDA]

and

[Insert Collaborator’s official name],
hereinafter referred to as the “Collaborator”,
having offices at **[Insert Collaborator’s address],**
created and operating under the laws of **[Insert State of Incorporation].**

PHS ECT-CRADA

Case Ref. No.

MODEL ADOPTED 2005

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT FOR EXTRAMURAL-PHS CLINICAL RESEARCH

Article 1. Introduction

This CRADA between ICD and Collaborator will be effective when signed by the Parties, which are identified on both the Cover Page and the Signature Page (page 22). The official contacts for the Parties are identified on the Contacts Information Page (page 23). Publicly available information regarding this CRADA appears on the Summary Page (page 24). The research and development activities that will be undertaken by ICD, ICD’s contractors or grantees, and

Collaborator in the course of this CRADA are detailed in the Research Plan, attached as Appendix A. The staffing, funding, and materials contributions of the Parties are set forth in Appendix B. Any changes to the model CRADA are set forth in Appendix C.

Article 2. Definitions

The terms listed in this Article will carry the meanings indicated throughout the CRADA. To the extent a definition of a term as provided in this Article is inconsistent with a corresponding definition in the applicable sections of either the United States Code (U.S.C.) or the Code of Federal Regulations (C.F.R.), the definition in the U.S.C. or C.F.R. will control.

“**Adverse Drug Experience**” or “**ADE**” means an Adverse Event associated with the use of the Test Article, that is, an event where there is a reasonable possibility that the Test Article may have caused the event (a relationship between the Test Article and the event cannot be ruled out), in accordance with the definitions of 21 C.F.R. Part 310, 305, or 312, or other applicable regulations.

“**Adverse Event**” or “**AE**” means any untoward medical occurrence in a Human Subject administered Test Article. An AE does not necessarily have a causal relationship with the Test Article, that is, it can be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease temporally associated with the use of the Test Article, whether or not it is related to it. See FDA Good Clinical Practice Guideline (International Conference on Harmonisation (ICH) E6: “Good Clinical Practice: Consolidated Guidance, 62 Federal Register 25, 691 (1997)).

“**Affiliate**” means any corporation or other business entity controlled by, controlling, or under common control with Collaborator at any time during the term of the CRADA. For this purpose, “control” means direct or indirect beneficial ownership of at least fifty percent (50%) of the voting stock or at least fifty percent (50%) interest in the income of the corporation or other business entity.

“**Annual Report**” means the report of progress of an IND-associated investigation that the Sponsor must submit to the FDA within sixty (60) days of the anniversary of the effective date of the IND (pursuant to 21 C.F.R. § 312.33).

“**Background Invention**” means an Invention conceived and first actually reduced to practice before the Effective Date.

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“**Clinical Data in ICD’s Possession and Control**” means all Raw Data that ICD employees create directly; and all copies of Raw Data and Summary Data that ICD obtains from Clinical Investigators or contractors performing CRADA activities.

“**Clinical Investigator**” means, in accordance with 21 C.F.R. § 312.3, an individual who actually conducts a clinical investigation, that is, who directs the administration or dispensation of Test Article to a subject, and who assumes responsibility for studying Human Subjects, for recording and ensuring the integrity of research data, and for protecting the welfare and safety of Human Subjects.

“**Clinical Research Site(s)**” means the site(s) at which the Protocol(s) described in the Research Plan will be performed.

“**Collaborator Materials**” means all tangible materials not first produced in the performance of this CRADA that are owned or controlled by Collaborator and used in the performance of the Research Plan. The term “Collaborator Materials” does not include “Test Article” (defined below).

“**Confidential Information**” means confidential scientific, business, financial information, or Identifiable Private Information provided that Confidential Information does not include:

- (a) information that is publicly known or that is available from public sources;
- (b) information that has been made available by its owner to others without a confidentiality obligation;
- (c) information that is already known by the receiving Party, or information that is independently created or compiled by the receiving Party without reference to or use of the provided information; or
- (d) information that relates to potential hazards or cautionary warnings associated with the production, handling, or use of the subject matter of the Research Plan.

“**Cooperative Research and Development Agreement**” or “**CRADA**” means this Agreement, entered into pursuant to the Federal Technology Transfer Act of 1986, as amended (15 U.S.C. §§ 3710a et seq.), and Executive Order 12591 of April 10, 1987.

“**CRADA Data**” means information developed by or on behalf of the Parties in the performance of the Research Plan, excluding Raw Data.

“**CRADA Materials**” means all tangible materials first produced in the performance of the Research Plan other than CRADA Data.

“**CRADA Principal Investigator(s)**” or “**CRADA PI(s)**” means the person(s) designated by the Parties who will be responsible for the scientific and technical conduct of the Research Plan.

“**CRADA Subject Invention**” means any Invention of either or both Parties, conceived or first actually reduced to practice in the performance of the Research Plan.

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“**Drug Master File**” or “**DMF**” is described in 21 C.F.R. Part 314.420. A DMF is a submission to the FDA that may be used to provide confidential detailed information about facilities, processes, or articles used in the manufacturing, processing, packaging, and storing of one or more human

drugs.

“**Effective Date**” means the date of the last signature of the Parties executing this Agreement.

“**Government**” means the Government of the United States of America.

“**Human Subject**” means, in accordance with the definition in 45 C.F.R. § 46.102(f), a living individual about whom an investigator conducting research obtains:

- (a) data through intervention or interaction with the individual; or
- (b) Identifiable Private Information.

“**ICD Materials**” means all tangible materials not first produced in the performance of this CRADA that are owned or controlled by ICD and used in the performance of the Research Plan.

“**IND**” means an “Investigational New Drug Application,” filed in accordance with 21 C.F.R. Part 312 under which clinical investigation of an experimental drug or biologic (Test Article) is performed in Human Subjects in the United States or intended to support a United States licensing action.

“**Identifiable Private Information**” or “**IPI**” about a Human Subject means private information from which the identity of the subject is or may readily be ascertained. Regulations defining and governing this information include 45 C.F.R. Part 46 and 21 C.F.R. Part 50.

“**Institutional Review Board**” or “**IRB**” means, in accordance with 45 C.F.R. Part 46, 21 C.F.R. part 56, and other applicable regulations, an independent body comprising medical, scientific, and nonscientific members, whose responsibility is to ensure the protection of the rights, safety, and well-being of the Human Subjects involved in a study.

“**Invention**” means any invention or discovery that is or may be patentable or otherwise protected under Title 35 of the United States Code, or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act, 7 U.S.C. §§ 2321 et seq.

“**Investigator’s Brochure**” means, in accordance with the definition in 21 C.F.R. § 312.23(a)(5), a document containing information about the Test Article, including animal screening, preclinical toxicology, and detailed pharmaceutical data, including a description of possible risks and side effects to be anticipated on the basis of prior experience with the drug or related drugs, and precautions, such as additional monitoring, to be taken as part of the investigational use of the drug.

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“**Patent Application**” means an application for patent protection for a CRADA Subject Invention with the United States Patent and Trademark Office (“U.S.P.T.O.”) or the corresponding patent-issuing authority of another nation.

“**Patent**” means any issued United States patent, any international counterpart(s), and any corresponding grant(s) by a non-U.S. government in place of a patent.

“**Placebo**” means an inactive substance identical in appearance to the material being tested that is used to distinguish between drug action and suggestive effect of the material under study.

“**Protocol**” means the formal, detailed description of a study to be performed as provided for in the Research Plan. It describes the objective(s), design, methodology, statistical considerations, and organization of a trial. For the purposes of this CRADA, the term, Protocol, for clinical research involving Human Subjects, includes any and all associated documents, including informed consent forms, to be provided to Human Subjects and potential participants in the study.

“**Raw Data**” means the primary quantitative and empirical data first collected from experiments and clinical trials conducted within the scope of this CRADA.

“**Research Plan**” means the statement in Appendix A of the respective research and development commitments of the Parties. The Research Plan should describe the provisions for sponsoring the IND, clinical and safety monitoring, and data management.

“**Sponsor**” means, in accordance with the definition in 21 C.F.R. § 312.3, an organization or individual who assumes legal responsibility for supervising or overseeing clinical trials with Test Articles, and is sometimes referred to as the IND holder.

“**Steering Committee**” means the research and development team whose composition and responsibilities with regard to the research performed under this CRADA are described in Appendix A.

“**Summary Data**” means any extract or summary of the Raw Data, generated either by or, on behalf of, ICD or by, or on behalf of, Collaborator. Summary Data may include extracts or summaries that incorporate IPI.

“**Test Article**” means, in accordance with 21 C.F.R. § 50.3(j), any drug (including a biological product), medical device, food additive, color additive, electronic product, or any other article subject to regulation under the Federal Food, Drug, and Cosmetic Act that is intended for administration to humans or animals, including a drug or biologic as identified in the Research Plan and Appendix B, that is used within the scope of the Research Plan. The Test Article may also be referred to as Investigational Agent, Study Material, or Study Product.

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Article 3. Cooperative Research and Development

3.1 **Performance of Research and Development.** The research and development activities to be carried out under this CRADA will be performed by the Parties identified on the Cover Page, as well as ICD's contractors or grantees as described in the Research Plan. However, ICD's contractors or grantees are not Parties to the CRADA, and this CRADA does not grant to Collaborator any rights to Inventions made by ICD's contractors or grantees. The CRADA PIs will be responsible for coordinating the scientific and technical conduct of this project on behalf of their employers. Any Collaborator employees who will work at ICD facilities will be required to sign a Guest Researcher or Special Volunteer Agreement appropriately modified in view of the terms of this CRADA.

3.2 **Research Plan.** The Parties recognize that the Research Plan describes the collaborative research and development activities they will undertake and that interim research goals set forth in the Research Plan are good faith guidelines. Should events occur that require modification of these goals, then by mutual agreement the Parties can modify them through an amendment, according to Paragraph 13.6.

3.3 **Use and Disposition of Collaborator Materials and ICD Materials.** The Parties agree to use Collaborator Materials and ICD Materials only in accordance with the Research Plan and Protocol(s), not to transfer these materials to third parties except in accordance with the Research Plan and Protocol(s) or as approved by the owning or providing Party, and, upon expiration or termination of the CRADA, to dispose of these materials as directed by the owning or providing Party.

3.4 **Third-Party Rights in Collaborator's CRADA Subject Inventions.** If Collaborator has received (or will receive) support of any kind from a third party in exchange for rights in any of Collaborator's CRADA Subject Inventions, Collaborator agrees to ensure that its obligations to the third party are both consistent with Articles 6 through 8 and subordinate to Article 7 of this CRADA.

3.5 **Disclosures to ICD.** Prior to execution of this CRADA, Collaborator agrees to disclose to ICD all instances in which outstanding royalties are due under a PHS license agreement and in which Collaborator had a PHS license terminated in accordance with 37 C.F.R. § 404.10. These disclosures will be treated as Confidential Information upon request by Collaborator in accordance with Paragraphs 2.4, 8.3, and 8.4.

3.6 **Clinical Investigator Responsibilities.** The Clinical Investigator will be required to submit, or to arrange for submission of, each Protocol associated with this CRADA to all appropriate IRBs, and for ensuring that the IRBs are notified of the role of Collaborator in the research. In addition to the Protocol all associated documents, including informational documents and advertisements, must be reviewed and approved by the appropriate IRB(s) before starting the research at each Clinical Research Site. The research will be done in strict accordance with the Protocol(s) and no substantive changes in a finalized Protocol will be made unless mutually agreed upon, in writing, by the Parties. Research will not commence (or will continue unchanged, if already in progress) until each substantive change to a Protocol, including

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those required by either the FDA or the IRB, has been integrated in a way acceptable to the Parties, submitted to the FDA (if applicable) and approved by the appropriate IRBs.

3.7 Investigational Applications.

- 3.7.1 If an IND is required either ICD or Collaborator, as indicated in the Research Plan, will submit an IND and all Clinical Investigators must have completed registration documents on file (1572 forms).
- 3.7.2 If ICD elects to file its own IND, Collaborator agrees to provide ICD background data and information necessary to support the IND. Collaborator further agrees to provide a letter of cross-reference to all pertinent regulatory filings sponsored by Collaborator. Collaborator's employees will be reasonably available to respond to inquiries from the FDA regarding information and data contained in the Collaborator's IND, DMF, other filings, or other information and data provided to ICD by the Collaborator pursuant to this Article 3. If ICD has provided information or data to assist Collaborator in its IND filing, ICD will provide a letter of cross reference to its IND and respond to inquiries related to information provided by ICD, as applicable.
- 3.7.3 If Collaborator supplies Confidential Information to ICD in support of an IND filed by ICD, this information will be protected in accordance with the corresponding confidentiality provisions of Article 8.
- 3.7.4 Collaborator may sponsor its own clinical trials and hold its own IND for studies performed outside the scope of this CRADA. These studies, however, should not adversely affect the ability to accomplish the goal of the Research Plan, for example, by competing for the same study population. All data from those clinical trials are proprietary to Collaborator for purposes of this CRADA.

3.8 **Test Article Information and Supply.** Collaborator agrees to provide ICD without charge and on a schedule that will ensure adequate and timely performance of the research, a sufficient quantity of formulated and acceptably labeled, clinical-grade Test Article (and, as required by the Protocol(s), Placebo) to complete the clinical trial(s) agreed to and approved under this CRADA. Collaborator will provide a Certificate of Analysis to ICD for each lot of the Test Article provided.

3.9 **Test Article Delivery and Usage.** Collaborator will ship the Test Article and, if required, Placebo to ICD or its designee in containers marked in accordance with 21 C.F.R. § 312.6. ICD agrees that the Clinical Investigators will keep appropriate records and take reasonable steps to ensure that the Test Article is used in accordance with the Protocol(s) and applicable FDA regulations. In addition, ICD agrees that the Test Article (and all Confidential Information supplied by Collaborator relating to the Test Article) will be used solely for the conduct of the CRADA research and development activities. Furthermore, ICD agrees that no analysis or modification of the Test Article will be performed without Collaborator's prior written consent. At the completion of the Research Plan, any unused quantity of Test Article will be returned to Collaborator or disposed as directed by Collaborator. Pharmacy contacts at ICD or its designee will be determined by ICD and communicated to Collaborator.

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3.10 **Monitoring.**

- 3.10.1 The Sponsor or its designee will be primarily responsible for monitoring clinical sites and for assuring the quality of all clinical data, unless otherwise stated in the Research Plan. Monitoring will comply with FDA Good Clinical Practice (International Conference on Harmonisation (ICH) E6: "Good Clinical Practice: Consolidated Guidance; 62 Federal Register 25, 691 (1997)). The other Party may also perform quality assurance oversight. The monitor will communicate significant Protocol violations and submit documentation of monitoring outcomes on Protocol insufficiencies to the other Party in a timely manner.
- 3.10.2 Subject to the restrictions in Article 8 concerning IPI, and with reasonable advance notice and at reasonable times, ICD will permit Collaborator or its designee(s) access to clinical site(s) to monitor the conduct of the research, as well as to audit source documents containing Raw Data, to the extent necessary to verify compliance with FDA Good Clinical Practice and the Protocol(s).

3.11 **FDA Meetings/Communications.** All meetings with the FDA concerning any clinical trial within the scope of the Research Plan will be discussed by Collaborator and ICD in advance. Each Party reserves the right to take part in setting the agenda for, to attend, and to participate in these meetings. The Sponsor will provide the other Party with copies of FDA meeting minutes, all transmittal letters for IND submissions, IND safety reports, formal questions and responses that have been submitted to the FDA, Annual Reports, and official FDA correspondence, pertaining either to the INDs under this CRADA or to the Clinical Investigators on Protocols performed in accordance with the Research Plan, except to the extent that those documents contain the proprietary information of a third party or dissemination is prohibited by law.

Article 4. Reports

4.1 **Interim Research and Development Reports.** The CRADA PIs should exchange information regularly, in writing. This exchange may be accomplished through meeting minutes, detailed correspondence, circulation of draft manuscripts, Steering Committee reports, copies of Annual Reports and any other reports updating the progress of the CRADA research. However, the Parties must exchange updated Investigator's Brochure, formulation and preclinical data, and toxicology findings, as they become available.

4.2 **Final Research and Development Reports.** The Parties will exchange final reports of their results within six (6) months after the expiration or termination of this CRADA. These reports will set forth the technical progress made; any publications arising from the research; and the existence of invention disclosures of potential CRADA Subject Inventions and/or any corresponding Patent Applications.

4.3 **Fiscal Reports.** If Collaborator has agreed to provide funding to ICD under this CRADA and upon the request of Collaborator, then concurrent with the exchange of final research and development reports according to Paragraph 4.2, ICD will submit to Collaborator a statement of all costs incurred by ICD for the CRADA. If the CRADA has been terminated, ICD will specify any costs incurred before the date of termination for which ICD has not received funds from

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Collaborator, as well as for all reasonable termination costs including the cost of returning Collaborator property or removal of abandoned Collaborator property, for which Collaborator will be responsible.

4.4 **Safety Reports.** In accordance with FDA requirements, the Sponsor will establish and maintain records and submit safety reports to the FDA, as required by 21 C.F.R. § 312.32 and 21 C.F.R. 812.150(b)(1), or other applicable regulations. In the conduct of research under this CRADA, the Parties will comply with specific ICD guidelines and policies for reporting ADEs and AEs, as well as procedures specified in the Protocol(s). The Sponsor must provide the other Party with copies of all Safety Reports concurrently with their submission to the FDA, and with any other information affecting the safety of Human Subjects in research conducted under this CRADA.

4.5 **Annual Reports.** The Sponsor will provide the other Party a copy of the Annual Report concurrently with the submission of the Annual Report to the FDA. Annual Reports will be kept confidential in accordance with Article 8,

Article 5. Staffing, Financial, and Materials Obligations

5.1 **ICD and Collaborator Contributions.** The contributions of any staff, funds, materials, and equipment by the Parties are set forth in Appendix B. The Federal Technology Transfer Act of 1986, 15 U.S.C. § 3710a(d)(1) prohibits ICD from providing funds to Collaborator for any research and development activities under this CRADA.

5.2 **ICD Staffing.** No ICD employees will devote 100% of their effort or time to the research and development activities under this CRADA. ICD will not use funds provided by Collaborator under this CRADA for ICD personnel to pay the salary of any permanent ICD employee. Although personnel hired by ICD using CRADA funds will focus principally on CRADA research and development activities, Collaborator acknowledges that these personnel may nonetheless make contributions to other research and development activities, and the activities will be outside the scope of this CRADA.

5.3 **Collaborator Funding.** Collaborator acknowledges that Government funds received by Collaborator from an agency of the Department of Health and Human Services may not be used to fund ICD under this CRADA. If Collaborator has agreed to provide funds to ICD then the payment schedule appears in Appendix B and Collaborator will make payments according to that schedule. If Collaborator fails to make any scheduled payment, ICD will not be obligated to perform any of the research and development activities specified herein or to take any other action required by this CRADA until the funds are received. ICD will use these funds exclusively for the purposes of this CRADA. Each Party will maintain separate and distinct current accounts, records, and other evidence supporting its financial obligations under this CRADA and, upon written request, will provide the other Party a Fiscal Report according to Paragraph 4.3, which delineates all payments made and all obligated expenses, along with the Final Research Report described in Paragraph 4.2.

5.4 **Capital Equipment.** Collaborator's commitment, if any, to provide ICD with capital equipment to enable the research and development activities under the Research Plan appears in

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Appendix B. If Collaborator transfers to ICD the capital equipment or provides funds for ICD to purchase it, then ICD will own the equipment. If Collaborator loans capital equipment to ICD for use during the CRADA, Collaborator will be responsible for paying all costs and fees associated with the transport, installation, maintenance, repair, removal, or disposal of the equipment, and ICD will not be liable for any damage to the equipment.

Article 6. Intellectual Property

6.1 Ownership of CRADA Subject Inventions, CRADA Data, and CRADA Materials. Subject to the Government license described in Paragraph 7.5, the sharing requirements of Paragraph 8.1 and the regulatory filing requirements of Paragraph 8.2, the producing Party will retain sole ownership of and title to all CRADA Subject Inventions, all copies of CRADA Data, and all CRADA Materials produced solely by its employee(s). The Parties will own jointly all CRADA Subject Inventions invented jointly and all CRADA Materials developed jointly. A PHS contractor's or grantee's rights in data it generates will not be affected by this CRADA.

6.2 Reporting. The Parties will promptly report to each other in writing each CRADA Subject Invention reported by their respective personnel, and any Patent Applications filed thereon, resulting from the research and development activities conducted under this CRADA. Each Party will report all CRADA Subject Inventions to the other Party in sufficient detail to determine inventorship, which will be determined in accordance with U.S. patent law. These reports will be treated as Confidential Information in accordance with Article 8. Formal reports will be made by and to the Patenting and Licensing Offices identified on the Contacts Information Page herein.

6.3 Filing of Patent Applications. Each Party will make timely decisions regarding the filing of Patent Applications on the CRADA Subject Inventions made solely by its employee(s), and will notify the other Party in advance of filing. Collaborator will have the first opportunity to file a Patent Application on joint CRADA Subject Inventions and will notify PHS of its decision within sixty (60) days of an Invention being reported or at least thirty (30) days before any patent filing deadline, whichever occurs sooner. If Collaborator fails to notify PHS of its decision within that time period or notifies PHS of its decision not to file a Patent Application, then PHS has the right to file a Patent Application on the joint CRADA Subject Invention. Neither Party will be obligated to file a Patent Application. Collaborator will place the following statement in any Patent Application it files on a CRADA Subject Invention: "This invention was created in the performance of a Cooperative Research and Development Agreement with the [INSERT into Agency's model as appropriate: **National Institutes of Health, Food and Drug Administration, Centers for Disease Control and Prevention**], an Agency of the Department of Health and Human Services. The Government of the United States has certain rights in this invention." If either Party files a Patent Application on a joint CRADA Subject Invention, then the filing Party will include a statement within the Patent Application that clearly identifies the Parties and states that the joint CRADA Subject Invention was made under this CRADA.

6.4 Patent Expenses. Unless agreed otherwise, the Party filing a Patent Application will pay all preparation and filing expenses, prosecution fees, issuance fees, post issuance fees, patent maintenance fees, annuities, interference expenses, and attorneys' fees for that Patent Application and any resulting Patent(s). If a license to any CRADA Subject Invention is granted

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to Collaborator, then Collaborator will be responsible for all expenses and fees, past and future, in connection with the preparation, filing, prosecution, and maintenance of any Patent Applications and Patents claiming exclusively licensed CRADA Subject Inventions and will be responsible for a pro-rated share, divided equally among all licensees, of those expenses and fees for non-exclusively licensed CRADA Subject Inventions. Collaborator may waive its exclusive option rights at any time, and incur no subsequent financial obligation for those Patent Application(s) or Patent(s).

6.5 Prosecution of Patent Applications. The Party filing a Patent Application will provide the non-filing Party with a copy of any official communication relating to prosecution of the Patent Application within thirty (30) days of transmission of the communication. Each Party will also provide the other Party with the power to inspect and make copies of all documents retained in the applicable Patent Application or Patent file. The Parties agree to consult with each other regarding the prosecution of Patent Applications directed to joint CRADA Subject Inventions. If Collaborator elects to file and prosecute Patent Applications on joint CRADA Subject Inventions, then Collaborator agrees to use the U.S.P.T.O. Customer Number Practice and/or grant PHS a power(s) of attorney (or equivalent) necessary to assure PHS access to its intellectual property rights in these Patent Applications. PHS and Collaborator will cooperate with each other to obtain necessary signatures on Patent Applications, assignments, or other documents.

Article 7. Licensing

7.1 Background Inventions. Other than as specifically stated in this Article 7, nothing in this CRADA will be construed to grant any rights in one Party's Background Invention(s) to the other Party, except to the extent necessary for the Parties to conduct the research and development activities described in the Research Plan.

7.2 Collaborator's License Option to CRADA Subject Inventions. With respect to Government rights to any CRADA Subject Invention made solely by an ICD employee(s) or made jointly by an ICD employee(s) and a Collaborator employee(s) for which a Patent Application was filed, PHS hereby grants to Collaborator an exclusive option to elect an exclusive or nonexclusive commercialization license. The license will be substantially in the form of the appropriate model PHS license agreement and will fairly reflect the nature of the CRADA Subject Invention, the relative contributions of the Parties to the CRADA Subject Invention and the CRADA, a plan for the development and marketing of the CRADA Subject Invention, the risks incurred by Collaborator, and the costs of subsequent research and development needed to bring the CRADA Subject Invention to the marketplace. The field of use of the license will not exceed the scope of the Research Plan.

7.3 Exercise of Collaborator's License Option. To exercise the option of Paragraph 7.2 Collaborator must submit a written notice to the PHS Patenting and Licensing Contact identified on the Contacts Information Page (and provide a copy to the ICD Contact for CRADA Notices) within three (3) months after either (i) Collaborator receives written notice from PHS that the Patent Application has been filed or (ii) the date on which Collaborator files the Patent Application. The written notice exercising this option will include a completed "Application for License to Public Health Service Inventions" and will initiate a negotiation period that expires

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nine (9) months after the exercise of the option. If PHS has not responded in writing to the last proposal by Collaborator within this nine (9) month period, the negotiation period will be extended to expire one (1) month after PHS so responds, during which month Collaborator may accept in writing the final license proposal of PHS. In the absence of Collaborator's exercise of the option, or upon election of a nonexclusive license, PHS will be free to license the CRADA Subject Invention to others. These time periods may be extended at the sole discretion of PHS upon good cause shown in writing by Collaborator.

7.4 Government License in ICD Sole CRADA Subject Inventions and Joint CRADA Subject Inventions. Pursuant to 15 U.S.C. § 3710a(b)(1)(A), for CRADA Subject Inventions owned solely by ICD or jointly by ICD and Collaborator, and licensed pursuant to the option of Paragraph 7.2, Collaborator grants to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice the CRADA Subject Invention or have the CRADA Subject Invention practiced throughout the world by or on behalf of the Government. In the exercise of this license, the Government will not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of 5 U.S.C. § 552(b)(4) or which would be considered privileged or confidential if it had been obtained from a non-federal party.

7.5 Government License in Collaborator Sole CRADA Subject Inventions. Pursuant to 15 U.S.C. § 3710a(b)(2), for CRADA Subject Inventions made solely by an employee of Collaborator, Collaborator grants to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice the CRADA Subject Invention or have the CRADA Subject Invention practiced throughout the world by or on behalf of the Government for research or other Government purposes.

7.6 Third Party License. Pursuant to 15 U.S.C. § 3710a(b)(1)(B), if PHS grants Collaborator an exclusive license to a CRADA Subject Invention made solely by an ICD employee or jointly with a Collaborator employee, the Government will retain the right to require Collaborator to grant to a responsible applicant a nonexclusive, partially exclusive, or exclusive sublicense to use the CRADA Subject Invention in Collaborator's licensed field of use on terms that are reasonable under the circumstances; or, if Collaborator fails to grant a license, to grant a license itself. The exercise of these rights by the Government will only be in exceptional circumstances and only if the Government determines (i) the action is necessary to meet health or safety needs that are not reasonably satisfied by Collaborator, (ii) the action is necessary to meet requirements for public use specified by federal regulations, and such requirements are not reasonably satisfied by Collaborator; or (iii) Collaborator has failed to comply with an agreement containing provisions described in 15 U.S.C. § 3710a(c)(4)(B). The determination made by the Government under this Paragraph is subject to administrative appeal and judicial review under 35 U.S.C. § 203(2).

7.7 Third-Party Rights In ICD Sole CRADA Subject Inventions. For a CRADA Subject Invention conceived prior to the Effective Date solely by an ICD employee that is first actually reduced to practice after the Effective Date in the performance of the Research Plan, the option offered to Collaborator in Paragraph 7.2 may be restricted if, prior to the Effective Date, PHS had filed a Patent Application and has either offered or granted a license in the CRADA Subject Invention to a third party. Collaborator nonetheless retains the right to apply for a license to any

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such CRADA Subject Invention in accordance with the terms and procedures of 35 U.S.C. § 209 and 37 C.F.R. Part 404.

7.8 Joint CRADA Subject Inventions Not Exclusively Licensed by Collaborator. If Collaborator does not acquire an exclusive commercialization license in a joint CRADA Subject Invention in all fields of use then, for those fields of use not exclusively licensed to Collaborator, each Party will have the right to use the joint CRADA Subject Invention and to license its use to others, and each Party will cooperate with the other, as necessary, to fulfill international licensing requirements. The Parties may agree to a joint licensing approach for any remaining fields of use.

Article 8. Rights of Access and Publication

8.1 Right of Access to CRADA Data and CRADA Materials. ICD and Collaborator agree to exchange all CRADA Data and to share all CRADA Materials. If the CRADA is terminated, both Parties agree to provide CRADA Materials in quantities needed to complete the Research Plan. Such provision will occur before the termination date of the CRADA or sooner, if required by the Research Plan. If Collaborator possesses any human biological specimens from clinical trials under the CRADA, the specimens must be handled as described in the Protocol or as otherwise directed by ICD before the termination date of the CRADA.

8.2 Use of CRADA Data and CRADA Materials. The Parties will be free to utilize CRADA Data and CRADA Materials internally for their own purposes, consistent with their obligations under this CRADA. ICD may share CRADA Data or CRADA Materials with any contractors, grantees, or agents it has engaged to conduct the CRADA research and development activities, provided the obligations of this Article 8.2 are simultaneously conveyed. Collaborator may share CRADA Data or CRADA Materials with any contractors, Affiliates, or agents it has engaged to conduct the CRADA research and development activities, provided the obligations of this Article 8.2 are simultaneously conveyed.

8.2.1 CRADA Data.

Collaborator and ICD will use reasonable efforts to keep CRADA Data confidential until published or until corresponding Patent Applications are filed. To the extent permitted by law, each Party will have the right to use any and all CRADA Data in and for any regulatory filing by or on behalf of the Party.

8.2.2 CRADA Materials.

Collaborator and ICD will use reasonable efforts to keep descriptions of CRADA Materials confidential until published or until corresponding Patent Applications are filed. Collaborator acknowledges that the basic research mission of PHS includes sharing with third parties for further research those research resources made in whole or in part with NIH funding. Consistent with this mission and the tenets articulated in "Sharing of Biomedical Research Resources: Principles and Guidelines for Recipients of NIH Research Grants and Contracts," December 1999, available at http://ott.od.nih.gov/NewPages/RTguide_final.html, following publication either Party may make available to third parties for further research those CRADA Materials made jointly by both PHS and Collaborator.

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Notwithstanding the above, if those joint CRADA Materials are the subject of a pending Patent Application or a Patent, or were created using a patent-pending or patented material or technology, the Parties may agree to restrict distribution or freely distribute them. Either Party may distribute those CRADA Materials made solely by the other Party only upon written consent from that other Party or that other Party's designee.

8.3 **Confidential Information.** Each Party agrees to limit its disclosure of Confidential Information to the amount necessary to carry out the Research Plan, and will place a confidentiality notice on all this information. A Party orally disclosing Confidential Information to the other Party will summarize the disclosure in writing and provide it to the other Party within fifteen (15) days of the disclosure. Each Party receiving Confidential Information agrees to use it only for the purposes described in the Research Plan. Either Party may object to the designation of information as Confidential Information by the other Party.

8.4 **Protection of Confidential Information.** Confidential Information will not be disclosed, copied, reproduced or otherwise made available to any other person or entity without the consent of the owning or providing Party except as required by a court or administrative body of competent jurisdiction, or federal law or regulation. Each Party agrees to use reasonable efforts to maintain the confidentiality of Confidential Information, which will in no instance be less effort than the Party uses to protect its own Confidential Information. Each Party agrees that a Party receiving Confidential Information will not be liable for the disclosure of that portion of the Confidential Information which, after notice to and consultation with the disclosing Party, the receiving Party determines may not be lawfully withheld, provided the disclosing Party has been given a reasonable opportunity to seek a court order to enjoin disclosure.

8.5 **Human Subject Protection.** The research to be conducted under this CRADA involves Human Subjects or human tissues within the meaning of 45 C.F.R. Part 46, and all research to be performed under this CRADA will conform to applicable federal laws and regulations. Additional information is available from the HHS Office for Human Research Protections (<http://www.hhs.gov/ohrp/>).

8.6 **Duration of Confidentiality Obligation.** The obligation to maintain the confidentiality of Confidential Information will expire at the earlier of the date when the information is no longer Confidential Information as defined in Paragraph 2.4 or three (3) years after the expiration or termination date of this CRADA, except for IPI, for which the obligation to maintain confidentiality will extend indefinitely. Collaborator may request an extension to this term when necessary to protect Confidential Information relating to products not yet commercialized.

8.7 **Publication.** The Parties are encouraged to make publicly available the results of their research and development activities. Before either Party submits a paper or abstract for publication or otherwise intends to publicly disclose information about a CRADA Subject Invention, CRADA Data, or CRADA Materials, the other Party will have thirty (30) days to review proposed manuscripts and three (3) days to review proposed abstracts to assure that Confidential Information is protected. Either Party may request in writing that the proposed publication or other disclosure be delayed for up to thirty (30) additional days as necessary to file a Patent Application.

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8.8 **Clinical Investigators' Research and Development Activities.** Although this CRADA does not grant to Collaborator any rights to Inventions made or Raw Data generated by ICD's contractors or grantees, as they are not parties to this CRADA, ICD agrees that:

8.8.1 Subject to the other provisions of Article 8 of this CRADA, ICD will maintain, to the extent permitted by law, all Clinical Data in ICD's Possession and Control as Confidential Information, and make them available to Collaborator for its own use and for exclusive use in obtaining regulatory approval for the commercial marketing of Test Article and related CRADA Subject Inventions.

8.8.2 With regard to Collaborator's Confidential Information, ICD will require the Clinical Investigators to agree to confidentiality provisions at least as restrictive as those provided in this CRADA and to Collaborator's use of data in accordance with Paragraph 8.8.1 for obtaining regulatory approval for marketing Test Article.

8.8.3 If Collaborator wants access to Raw Data or any other data in the possession of the Clinical Investigators working with Test Article, Collaborator must first contact the CRADA PI. Collaborator will bear any costs associated with Raw Data provided in formats customized for Collaborator.

8.8.4 Collaborator's right to access Clinical Data in ICD's Possession and Control under Paragraph 8.8 is dependent upon Collaborator's continued development and commercialization of Investigational Agent. If Collaborator fails to continue development or commercialization of Investigational Agent without the transfer of its development efforts to another party within ninety (90) days of discontinuation, ICD has the right to make Clinical Data in ICD's Possession and Control available to a third party.

Article 9. Representations and Warranties

9.1 **Representations of ICD.** ICD hereby represents to Collaborator that:

9.1.1 ICD has the requisite power and authority to enter into this CRADA and to perform according to its terms, and that ICD's official signing this CRADA has authority to do so.

9.1.2 To the best of its knowledge and belief, neither ICD nor any of its personnel involved in this CRADA is presently subject to debarment or suspension by any agency of the Government which would directly affect its performance of the CRADA. Should ICD or any of its personnel involved in this CRADA be debarred or suspended during the term of this CRADA, ICD will notify Collaborator within thirty (30) days of receipt of final notice.

9.2 **Representations and Warranties of Collaborator.** Collaborator hereby represents and warrants to ICD that:

9.2.1 Collaborator has the requisite power and authority to enter into this CRADA and to perform according to its terms, and that Collaborator's official signing this CRADA has authority to do so.

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9.2.2 Neither Collaborator nor any of its personnel involved in this CRADA, including Affiliates, agents, and contractors are presently subject to debarment or suspension by any agency of the Government. Should Collaborator or any of its personnel involved in this CRADA be debarred or suspended during the term of this CRADA, Collaborator will notify ICD within thirty (30) days of receipt of final notice.

9.2.3 Subject to Paragraph 12.3, and if and to the extent Collaborator has agreed to provide funding under Appendix B, Collaborator is financially able to satisfy these obligations in a timely manner.

9.2.4 The Test Article provided has been produced in accordance with the FDA's current Good Manufacturing Practice set out in 21 C.F.R. §§ 210-211, and ICH QA7, and meets the specifications cited in the Certificate of Analysis and Investigator's Brochure provided.

Article 10. Expiration and Termination

10.1 **Expiration.** This CRADA will expire on the last date of the term set forth on the Summary Page. In no case will the term of this CRADA extend beyond the term indicated on the Summary Page unless it is extended in writing in accordance with Paragraph 13.6.

10.2 **Termination by Mutual Consent.** ICD and Collaborator may terminate this CRADA at any time by mutual written consent.

10.3 **Unilateral Termination.** Either ICD or Collaborator may unilaterally terminate this CRADA at any time by providing written notice at least sixty (60) days before the desired termination date. ICD may, at its option, retain funds transferred to ICD before unilateral termination by Collaborator for use in completing the Research Plan. If Collaborator terminates this Agreement before the completion of all approved or active Protocol(s), then Collaborator will supply enough Test Article (and Placebo, if applicable) to complete these Protocol(s) unless termination is for safety concerns.

10.4 **Funding for ICD Personnel.** If Collaborator has agreed to provide funding for ICD personnel and this CRADA is mutually or unilaterally terminated by Collaborator before its expiration, then Collaborator agrees that funds for that purpose will be available to ICD for a period of six (6) months after the termination date or until the expiration date of the CRADA, whichever occurs sooner. If there are insufficient funds to cover this expense, Collaborator agrees to pay the difference.

10.5 **New Commitments.** Neither Party will incur new expenses related to this CRADA after expiration, mutual termination, or a notice of a unilateral termination and will, to the extent feasible, cancel all outstanding commitments and contracts by the termination date. Collaborator acknowledges that ICD will have the authority to retain and expend any funds for up to one (1) year subsequent to the expiration or termination date to cover any unpaid costs obligated during the term of the CRADA in undertaking the research and development activities set forth in the Research Plan.

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10.6 **Collaborator Failure to Continue Development.** If Collaborator suspends development of the Test Article without the transfer of its active development efforts, assets, and obligations to a third party within ninety (90) days of discontinuation, Collaborator agrees that ICD may continue developing the Test Article. In that event, the following will apply:

10.6.1 Collaborator agrees to transfer to ICD all information necessary to enable ICD to contract for the manufacture of the Test Article and, unless abandoned for reasons relating to safety as determined by the data safety monitoring board, to provide the Test Article (and Placebo, if any) in Collaborator's inventory to ICD.

10.6.2 Further, Collaborator hereby grants to ICD a nonexclusive, irrevocable, world-wide, paid-up license to practice, or have practiced for or on behalf of the Government, any Background Invention that Collaborator may currently have or will obtain on the Test Article, its manufacture, or on any method of using the Test Article for the indication(s) described in the Research Plan, including the right to sublicense to third parties.

Article 11. Disputes

11.1 **Settlement.** Any dispute arising under this CRADA which is not disposed of by agreement of the CRADA Principal Investigators will be submitted jointly to the signatories of this CRADA. If the signatories, or their designees, are unable to jointly resolve the dispute within thirty (30) days after notification thereof, the Assistant Secretary for Health (or his/her designee or successor) will propose a resolution. Nothing in this Paragraph will prevent any Party from pursuing any additional administrative remedies that may be available and, after exhaustion of such administrative remedies, pursuing all available judicial remedies.

11.2 **Continuation of Work.** Pending the resolution of any dispute or claim pursuant to this Article 11, the Parties agree that performance of all obligations will be pursued diligently.

Article 12. Liability

12.1 **NO WARRANTIES.** EXCEPT AS SPECIFICALLY STATED IN ARTICLE 9, THE PARTIES MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO ANY MATTER WHATSOEVER, INCLUDING THE CONDITIONS OF THE RESEARCH OR ANY INVENTION OR MATERIAL, WHETHER TANGIBLE OR INTANGIBLE, MADE OR DEVELOPED UNDER OR OUTSIDE THE SCOPE OF THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR ANY INVENTION OR MATERIAL, OR THAT A TECHNOLOGY UTILIZED BY A PARTY IN THE PERFORMANCE OF THE RESEARCH PLAN DOES NOT INFRINGE ANY THIRD-PARTY PATENT RIGHTS.

12.2 **Indemnification and Liability.** Collaborator agrees to hold the Government harmless and to indemnify the Government for all liabilities, demands, damages, expenses and losses arising out of the use by Collaborator for any purpose of the CRADA Data, CRADA Materials or CRADA Subject Inventions produced in whole or part by ICD employees under this CRADA, unless due to the negligence or willful misconduct of ICD, its employees, or agents. The Government has no statutory authority to indemnify Collaborator. Each Party otherwise will be

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liable for any claims or damages it incurs in connection with this CRADA, except that ICD, as an agency of the Government, assumes liability only to the extent provided under the Federal Tort Claims Act, 28 U.S.C. Chapter 171.

12.3 **Force Majeure.** Neither Party will be liable for any unforeseeable event beyond its reasonable control and not caused by its own fault or negligence, which causes the Party to be unable to perform its obligations under this CRADA, and which it has been unable to overcome by the exercise of due diligence. If a *force majeure* event occurs, the Party unable to perform will promptly notify the other Party. It will use its best efforts to resume performance as quickly as possible and will suspend performance only for such period of time as is necessary as a result of the *force majeure* event.

Article 13. Miscellaneous

13.1 **Governing Law.** The construction, validity, performance and effect of this CRADA will be governed by U.S. federal law, as applied by the federal courts in the District of Columbia. If any provision in this CRADA conflicts with or is inconsistent with any U.S. federal law or regulation, then the U.S. federal law or regulation will preempt that provision.

13.2 **Compliance with Law.** ICD and Collaborator agree that they will comply with, and advise any contractors, grantees, or agents they have engaged to conduct the CRADA research and development activities to comply with, all applicable Executive Orders, statutes, and HHS regulations relating to research on human subjects (45 C.F.R. Part 46, 21 C.F.R. Parts 50 and 56) and relating to the appropriate care and use of laboratory animals (7 U.S.C. §§ 2131 et seq.; 9 C.F.R. Part 1, Subchapter A). ICD and Collaborator will advise any contractors, grantees, or agents they have engaged to conduct clinical trials for this CRADA that they must comply with all applicable federal regulations for the protection of Human Subjects, which may include the Standards for Privacy of Individually Identifiable Health Information set forth in 45 C.F.R. Part 164. Collaborator agrees to ensure that its employees, contractors, and agents who might have access to a “select agent or toxin” (as that term is defined in 42 C.F.R. §§ 73.4-73.5) transferred from ICD is properly licensed to receive the “select agent or toxin.”

13.3 **Waivers.** None of the provisions of this CRADA will be considered waived by any Party unless a waiver is given in writing to the other Party. The failure of a Party to insist upon strict performance of any of the terms and conditions hereof, or failure or delay to exercise any rights provided herein or by law, will not be deemed a waiver of any rights of any Party.

13.4 **Headings.** Titles and headings of the articles and paragraphs of this CRADA are for convenient reference only, do not form a part of this CRADA, and will in no way affect its interpretation.

13.5 **Severability.** The illegality or invalidity of any provisions of this CRADA will not impair, affect, or invalidate the other provisions of this CRADA.

13.6 **Amendments.** Minor modifications to the Research Plan may be made by the mutual written consent of the CRADA Principal Investigators. Substantial changes to the CRADA, extensions of the term, or any changes to Appendix C will become effective only upon a written amendment signed by the signatories to this CRADA or by their representatives duly authorized

to execute an amendment. A change will be considered substantial if it directly expands the range of the potential CRADA Subject Inventions, alters the scope or field of any license option governed by Article 7, or requires a significant increase in the contribution of resources by either Party.

13.7 **Assignment.** Neither this CRADA nor any rights or obligations of any Party hereunder will be assigned or otherwise transferred by either Party without the prior written consent of the other Party. This CRADA will be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

13.8 **Notices.** All notices pertaining to or required by this CRADA will be in writing, signed by an authorized representative of the notifying Party, and delivered by first class, registered, or certified mail, or by an express/overnight commercial delivery service, prepaid and properly addressed to the other Party at the address designated on the Contacts Information Page, or to any other address designated in writing by the other Party. Notices will be considered timely if received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. Notices regarding the exercise of license options will be made pursuant to Paragraph 7.3. Either Party may change its address by notice given to the other Party in the manner set forth above.

13.9 **Independent Contractors.** The relationship of the Parties to this CRADA is that of independent contractors and not agents of each other or joint venturers or partners. Each Party will maintain sole and exclusive control over its personnel and operations.

13.10 **Use of Name; Press Releases.** By entering into this CRADA, the Government does not directly or indirectly endorse any product or service that is or will be provided, whether directly or indirectly related to either this CRADA or to any patent or other intellectual-property license or agreement that implements this CRADA by Collaborator, its successors, assignees, or licensees. Collaborator will not in any way state or imply that the Government or any of its organizational units or employees endorses any product or services. Each Party agrees to provide proposed press releases that reference or rely upon the work under this CRADA to the other Party for review and comment at least five (5) business days before publication. Either Party may disclose the Title and Abstract of the CRADA to the public without the approval of the other Party.

13.11 **Reasonable Consent.** Whenever a Party’s consent or permission is required under this CRADA, its consent or permission will not be unreasonably withheld.

13.12 **Export Controls.** Collaborator agrees to comply with U.S. export law and regulations. If Collaborator has a need to transfer any CRADA Materials made in whole or in part by ICD, or ICD Materials, or ICD’s Confidential Information to a person located in a country other than the United States, to an Affiliate organized under the laws of a country other than the United States, or to an employee of Collaborator in the United States who is not a citizen or permanent resident of the United States, Collaborator will acquire any and all necessary export licenses and other appropriate authorizations.

13.13 **Entire Agreement.** This CRADA constitutes the entire agreement between the Parties concerning the subject matter of this CRADA and supersedes any prior understanding or written or oral agreement.

13.14 **Survivability.** The provisions of Paragraphs 3.3, 3.4, 3.8, 4.2, 4.3, 5.3, 5.4, 6.1-9.2, 10.3-10.6, 11.1, 11.2, 12.1-12.3, 13.1-13.3, 13.7, 13.10 and 13.14 will survive the expiration or early termination of this CRADA.

SIGNATURES BEGIN ON THE NEXT PAGE

SIGNATURE PAGE

ACCEPTED AND AGREED

BY EXECUTING THIS AGREEMENT, EACH PARTY REPRESENTS THAT ALL STATEMENTS MADE HEREIN ARE TRUE, COMPLETE, AND ACCURATE TO THE BEST OF ITS KNOWLEDGE. COLLABORATOR ACKNOWLEDGES THAT IT MAY BE SUBJECT TO CRIMINAL, CIVIL, OR ADMINISTRATIVE PENALTIES FOR KNOWINGLY MAKING A FALSE, FICTITIOUS, OR FRAUDULENT STATEMENT OR CLAIM.

FOR ICD:

Signature	Date
Typed Name:	
Title:	

FOR COLLABORATOR:

Signature	Date
Typed Name:	
Title:	

CONTACTS INFORMATION PAGE

CRADA Notices

For ICD:	For Collaborator:
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Patenting and Licensing

For ICD:	For Collaborator (if separate from above):
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Division Director, Division of Technology
Development and Transfer
NIH Office of Technology Transfer
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804
Tel: 301-496-7057
Fax: 301-402-0220

Delivery of Materials Identified In Appendix B (if any)

For ICD:	For Collaborator:
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Name:
Branch:
Address:
Telephone:

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SUMMARY PAGE

*EITHER PARTY MAY, WITHOUT FURTHER CONSULTATION OR PERMISSION,
RELEASE THIS SUMMARY PAGE TO THE PUBLIC.*

TITLE OF CRADA:

PHS [ICD] Component:
ICD CRADA Principal Investigator:

Collaborator:
Collaborator CRADA Principal Investigator:

Term of CRADA: () years from the Effective Date

ABSTRACT OF THE RESEARCH PLAN:

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Appendix C

CTEP Exceptions or Modifications to this CRADA (6/26/06)

Appendix C

Exceptions or Modifications to this CRADA

Additions and deletions within Articles of the extramural clinical trial CRADA appear as underline and strikeout, respectively.

“**Test Article**” means, in accordance with 21 C.F.R. § 50.3(j), any drug (including a biological product), medical device, food additive, color additive, electronic product, or any other article subject to regulation under the Federal Food, Drug, and Cosmetic Act that is intended for administration to humans or animals, including a drug or biologic as identified in the Research Plan and Appendix B, that is used within the scope of the Research Plan. The Test Article may also be referred to as Investigational Agent, Study Material, or Study Product. For this Agreement, Investigational Agent means xxxxxxxxxxxx.

Add the following new sections to the **Article 2. Definitions**:

“**Contract**” means a Funding Agreement that is a research and development mechanism that provides that the contractor perform for the benefit of the Government, with an expectation of completion of the stated research goals and the delivery of a report, data, materials or other product. Generally, Contracts are administered under the Federal Acquisition Regulations (FAR) codified at Title 48 C.F.R., Chapter 1 or the Health Services Acquisition Regulations (HSAR) codified at Title 48 C.F.R., Chapter 3.

“**Cooperative Agreement**” means a Funding Agreement that is a species of a Grant, whereby the funding Federal agency intends to be substantially involved in carrying out the research program.

“**CTA**” means Clinical Trial Agreement.

“**CTEP**” means the Cancer Therapy Evaluation Program, DCTD, NCI, a program within NCI which plans, assesses and coordinates all aspects of clinical trials including extramural clinical research programs, internal resources, treatment methods and effectiveness, and compilation and exchange of data.

“**DTP**” means Developmental Therapeutics Program, DCTD, NCI, the program within the NCI which coordinates preclinical development of agents to be evaluated in DCTD-sponsored clinical trials.

“**DCTD**” means Division of Cancer Treatment and Diagnosis, NCI.

“**FDA**” means U.S. Food and Drug Administration.

“**Funding Agreement**” means a Contract, Grant, or Cooperative Agreement entered into between a Federal agency and another party for the performance of experimental, developmental or research work funded in whole or in part by the Federal Government.

“Grant” means a Funding Agreement that is an award of financial assistance which may be provided for support of basic research in a specific field of interest to the funding Federal agency.

“Multi-Party Data” means clinical data from clinical studies sponsored by NCI pursuant to CTAs or CRADAs, where such data are collected under protocols involving combinations of investigational agents from more than one CTA or CRADA collaborator.

“Protocol Review Committee” (or “PRC”) means the CTEP/DCTD committee that reviews and approves studies involving NCI investigational agents and/or activities supported by NCI.

3.7 **Investigational New Drug Applications.**

- 3.7.1 DCTD, NCI, as indicated in the Research Plan, will prepare and submit an IND and all Clinical Investigators participating in DCTD-sponsored clinical trials must have completed registration documents on file (1572 forms) with CTEP.
- 3.7.2 To support the DCTD IND, Collaborator agrees to provide DCTD background data and information necessary to support the IND. Collaborator further agrees to provide a letter of cross-reference to all pertinent regulatory filings including an IND and/or DMF sponsored by Collaborator. Collaborator’s employees will be reasonably available to respond to inquiries from the FDA regarding information and data contained in the Collaborator’s IND, DMF, other filings, or other information and data provided to DCTD by the Collaborator pursuant to this Article 3. If DCTD has provided information or data to assist Collaborator in its IND filing, DCTD will provide a letter of cross reference to its IND and respond to inquiries related to information provided by DCTD, as applicable.
- 3.7.3 If Collaborator supplies Confidential Information to DCTD in support of an IND filed by DCTD, this information will be protected in accordance with the corresponding confidentiality provisions of Article 8.
- 3.7.4 Collaborator may sponsor its own clinical trials and hold its own IND for studies performed outside the scope of this CRADA. These studies, however, should not adversely affect the ability to accomplish the goal of the Research Plan, for example, by competing for the same study population. All data from those clinical trials are proprietary to Collaborator for purposes of this CRADA.
- 3.7.5 In the event that Canadian institutions are participating on DCTD-sponsored clinical trials, Collaborator will need to assist in the submission of the regulatory documents to the Canadian Health Products and Food Branch to allow for such participation. This may include a letter of cross-reference to an existing Clinical Trials Application (CTA) or a DMF, including supporting documentation on the production of the Investigational Agent. The forms and procedures for preparing Canadian CTAs are available at http://www.hc-sc.gc.ca/hpfb-dgpsa/index_e.html.

3.8 **Investigational Agent Information and Supply.** Collaborator agrees to provide DCTD without charge and on a schedule that will ensure adequate and timely performance of the research, a sufficient quantity of formulated and acceptably labeled, clinical-grade Investigational Agent (and, as required by the Protocol(s), Placebo) to complete the clinical trial(s) agreed to and approved under this CRADA. Collaborator will provide a Certificate of Analysis to DCTD for each lot of the Investigational Agent provided. It is understood that DCTD shall take responsibility for and reasonable steps to maintain appropriate records and assure appropriate supply, handling storage, distribution and usage of these materials in accordance with the terms of this Agreement, the Protocol(s) and any applicable laws and regulations relating thereto.

Collaborator agrees to supply sufficient inventory to ensure adequate and timely supply of Investigational Agent for mutually agreed upon Protocol(s). DCTD will provide updated forecasts of amounts of Investigational Agent anticipated for ongoing and anticipated studies. Collaborator further agrees to provide draft Investigational Agent labels to the NCI Pharmaceutical Management Branch (PMB) for review and agrees to reasonable labeling revisions to comply with DCTD label guidelines. NCI NSC (National Service Center) numbers will be required to be on the label of Investigational Agent for all DCTD-sponsored clinical trials.

Furthermore, Collaborator agrees to provide without charge Investigational Agent or unformulated analytical grade Investigational Agent or metabolites, if available, to DCTD to supply to NCI investigators for the development of mutually agreed upon analytical assays, ancillary correlative studies and pre-clinical studies conducted in conjunction with DCTD-sponsored protocols.

Collaborator agrees to allow Investigational Agent to be distributed to NCI investigators for mutually agreeable preclinical studies designed to enhance the basic understanding and development of Investigational Agent. These will include preclinical studies designed to support clinical trials in pediatric patients; preclinical combination studies to provide data in support of a clinical trial and other pertinent requests. All NCI investigators will sign Material Transfer Agreements (MTAs) that acknowledge the proprietary nature of the Investigational Agent to Collaborator and include intellectual property and publication provisions consistent with those in this Agreement and for clinical trials.

For many investigational agents for which NCI collaborates in development, NCI will undertake non-clinical studies to enhance the understanding of the mechanism of action of the investigational agent and its targets such as, but not limited to, the development of assays to detect target modulation, biomarker studies, and pharmacodynamics in conjunction with the conduct of clinical studies sponsored by DCTD. Collaborator agrees to provide Investigational Agent to DCTD for these non-clinical studies. A general plan for the non-clinical studies of the Investigational Agent will be established by the Steering Committee. Manuscripts and presentations related to non-clinical studies will be handled in accordance with Article 8.7 of this CRADA.

Collaborator agrees to provide to the PMB the Investigator’s Brochure (IB) for Investigational Agent and all subsequent revisions/editions. In addition to being filed to the CTEP IND, the IB

will be on file in the PMB and will be distributed to all investigators participating on a clinical trial using the Investigational Agent. Distribution will be accompanied by a statement about the confidentiality of the document and it is anticipated that distribution will be electronic. All electronic distribution will be done using Adobe Acrobat PDF. Any IB received by the PMB that is not in this format will be converted before distribution. Hard copy IBs should be sent to IB Coordinator, Pharmaceutical Management Branch, CTEP, DCTD, NCI, 6130 Executive Blvd, Room 7149, Rockville, MD 20852. Electronic versions should be emailed to the IB Coordinator at IBCoordinator@mail.nih.gov.

3.9 **Investigational Agent Delivery and Usage.** Collaborator will ship the Investigational Agent and, if required, Placebo to NCI or its designee in containers marked in accordance with 21 C.F.R. § 312.6. NCI agrees that the Clinical Investigators will keep appropriate records and take reasonable steps to ensure that the Investigational Agent is used in accordance with the Protocol(s) and applicable FDA regulations. In addition, NCI agrees that the Investigational Agent (and all Confidential Information supplied by Collaborator relating to the Investigational Agent) will be used solely for the conduct of the CRADA research and development activities. Furthermore, NCI agrees that no analysis or modification of the Investigational Agent will be performed without Collaborator's prior written consent. At the completion of the Research Plan, any unused quantity of Investigational Agent will be returned to Collaborator or disposed as directed by Collaborator. The contact person for NCI will be Mr. Charles Hall, Chief, Pharmaceutical Management Branch (Telephone Number 301-496-5725) and the Collaborator contact will be XXXXXX (Telephone Number XXXXX).

3.10 **Monitoring.**

3.10.1 DCTD, NCI will be primarily responsible for monitoring clinical sites and for assuring the quality of all clinical data, unless otherwise stated in the Research Plan. Monitoring will comply with FDA Good Clinical Practice (International Conference on Harmonisation (ICH) E6: "Good Clinical Practice: Consolidated Guidance; 62 Federal Register 25, 691 (1997)).

3.10.2 Subject to the restrictions in Article 8 concerning IPI, and with reasonable advance notice and at reasonable times, DCTD will permit Collaborator or its designee(s) access to clinical site(s) to monitor the conduct of the research, as well as to audit source documents containing Raw Data, to the extent necessary to verify compliance with FDA Good Clinical Practice and the Protocol(s).

3.11 **FDA Meetings/Communications.** All formal meetings with the FDA concerning any clinical trial within the scope of the Research Plan will be discussed by Collaborator and ICD in advance. Each Party reserves the right to take part in setting the agenda for, to attend, and to participate in these meetings. The Sponsor will provide the other Party with copies of FDA

meeting minutes, all transmittal letters for IND submissions, IND safety reports, formal questions and responses that have been submitted to the FDA, Annual Reports, and official FDA correspondence, pertaining either to the INDs under this CRADA or to the Clinical Investigators on Protocols performed in accordance with the Research Plan, except to the extent that those documents contain the proprietary information of a third party or dissemination is prohibited by law.

Add a new **Article 3.12** as follows:

3.12 **Steering Committee and CRADA Research.** The Parties agree to establish a Steering Committee comprising at least the CRADA Principal Investigators to conduct and monitor the research of the Investigational Agent in accordance with the CRADA Research Plan. Members of the Steering Committee shall continue to remain employed by their respective employers under their respective terms of employment.

Investigational Agent's development under the CRADA Research Plan shall be a collaborative undertaking by Collaborator and NCI. Details of this development beyond those set forth in the CRADA Research Plan shall be formulated and/or discussed in Steering Committee meeting(s) before implementation of large-scale or resource intensive studies. The clinical development plans formulated by the Steering Committee shall be implemented either intramurally at the NCI or extramurally under NCI-sponsored Funding Agreements.

Additional CRADA information, including Steering Committee meeting reports, Protocol Review Committee records, clinical trial protocols, Institutional Review Board approval information, IND and general regulatory information, and preclinical and clinical data in NCI's possession and control shall remain on file with NCI.

Add a new **Article 3.13** as follows:

3.13 **Clinical Protocols.** Clinical protocol Letters of Intent (LOI) or concepts for each study within the scope of the CRADA Research Plan will be solicited by CTEP from selected intramural and extramural Clinical Investigators. Clinical protocols from each DCTD- and Collaborator-approved LOI or concept will describe in detail the research to be conducted at each center and must be submitted to the Protocol Review Committee (PRC) for review and approval prior to implementation. Each clinical protocol received by NCI will be forwarded electronically to Collaborator for review and comment approximately two weeks before it is reviewed by the PRC. Comments from Collaborator received by CTEP before the PRC meeting will be discussed by the PRC, will be given due consideration, and will be incorporated into the protocol, absent good cause. Comments from either Collaborator or the CTEP staff that are agreed upon in the PRC meeting will be formatted as a consensus review, which is returned to the Clinical Investigator for necessary and/or suggested changes before the protocol can be given final approval and submitted to the FDA. A copy of the final approved protocol will be forwarded to Collaborator within 24 to 48 hours of its submission to the FDA.

4.2 **Final Research and Development Reports.** The Parties will exchange final reports of their results within six (6) months after the expiration or termination of this CRADA. These reports will set forth the technical progress made; any publications arising from the research; and

the existence of invention disclosures of potential CRADA Subject Inventions and/or any corresponding Patent Applications. Abstracts and publications provided to CTEP by investigators and further provided by CTEP to Collaborator will fulfill this final report obligation.

4.4 **Safety Reports.** DCTD shall report all serious and/or unexpected Adverse Events to FDA in accordance with the reporting obligations of 21 CFR 312.32 and will, within 24 to 48 hours of notification to FDA, forward all such reports to Collaborator. All other Adverse Event reports received by DCTD

shall be reported to the FDA consistent with 21 CFR 312.32 and 312.33. In the event that Collaborator informs the FDA of any serious and/or unexpected Adverse Events, Collaborator must notify the NCI at the same time by sending the reports to CTEPSupportAE@tech-res.com. NCI will then notify the Clinical Investigator(s) conducting studies under DCTD-sponsored protocols, if appropriate.

4.5 **Annual Reports.** DCTD will provide Collaborator a copy of the Annual Report concurrently with the submission of the Annual Report to the FDA. Annual Reports will be kept confidential in accordance with Article 8. Collaborator will provide DCTD with a copy of its Annual Report to the FDA if Collaborator is sponsoring studies of Investigational Agent under its own IND.

7.2 **Collaborator's License Option to CRADA Subject Inventions.** With respect to Government rights to any CRADA Subject Invention made solely by an ICD employee(s) or made jointly by an ICD employee(s) and a Collaborator employee(s) for which a Patent Application was filed, PHS hereby grants to Collaborator an exclusive option to elect an exclusive, or co-exclusive, if applicable, or nonexclusive commercialization license. The option to elect a co-exclusive license shall apply when a CRADA Subject Invention is also a CRADA Subject Invention under another CRADA resulting from mutually agreed upon studies as described in Article 8.9 and the field of use of this co-exclusive license shall be to the use of the combination of the Investigational Agent with another agent(s) commensurate with the scope of the Research Plan. The license will be substantially in the form of the appropriate model PHS license agreement and will fairly reflect the nature of the CRADA Subject Invention, the relative contributions of the Parties to the CRADA Subject Invention and the CRADA, a plan for the development and marketing of the CRADA Subject Invention, the risks incurred by Collaborator, and the costs of subsequent research and development needed to bring the CRADA Subject Invention to the marketplace. The field of use of the license will not exceed the scope of the Research Plan.

7.6 **Third Party License.** Pursuant to 15 U.S.C. § 3710a(b)(1)(B), if PHS grants Collaborator an exclusive, or co-exclusive, license to a CRADA Subject Invention made solely by an ICD employee or jointly with a Collaborator employee, the Government will retain the

right to require Collaborator to grant to a responsible applicant a nonexclusive, partially exclusive, or exclusive sublicense to use the CRADA Subject Invention in Collaborator's licensed field of use on terms that are reasonable under the circumstances; or, if Collaborator fails to grant a license, to grant a license itself. The exercise of these rights by the Government will only be in exceptional circumstances and only if the Government determines (i) the action is necessary to meet health or safety needs that are not reasonably satisfied by Collaborator, (ii) the action is necessary to meet requirements for public use specified by federal regulations, and such requirements are not reasonably satisfied by Collaborator; or (iii) Collaborator has failed to comply with an agreement containing provisions described in 15 U.S.C. § 3710a(c)(4)(B). The determination made by the Government under this Paragraph is subject to administrative appeal and judicial review under 35 U.S.C. § 203(2).

8.7 **Publication.** The Parties are encouraged to make publicly available the results of their research and development activities. Before Collaborator or NCI submits a paper or abstract for publication about a CRADA Subject Invention, CRADA Data, or CRADA Materials, the other Party will have thirty (30) days to review proposed manuscripts and three (3) days to review proposed abstracts to assure that Confidential Information is protected. Either Party may request in writing that a proposed publication be delayed for up to thirty (30) additional days as necessary to file a Patent Application. Manuscripts to be submitted for publication by NCI investigators will be sent to NCI's Regulatory Affairs Branch [anshers@mail.nih.gov] for forwarding to Collaborator for review as soon as they are received and in compliance with the timelines outlined above. Abstracts to be presented by NCI investigators will be sent to NCI's Regulatory Affairs Branch [anshers@mail.nih.gov] for forwarding to Collaborator as soon as they are received, preferably no less than three days prior to submission, but prior to presentation or publication, to allow for preservation of U.S. or foreign patent rights.

8.8 **Clinical Investigators' Research and Development Activities.** In pursuing the development of Investigational Agent pursuant to this CRADA, NCI may utilize contractors and extramural investigators that are not NCI employees for part or all of the completion of this Research Plan, which may cover pre-clinical, non-clinical and clinical studies, through Funding Agreements. Participation in DCTD-sponsored clinical trials by these investigators shall be determined after competitive solicitation and review of Protocol Letters of Intent (LOIs) and study protocols by CTEP, NCI. All Funding Agreements for the conduct of extramural clinical trials will include the Intellectual Property Option to Collaborator Terms of Award Addition offering Collaborator first rights of negotiation to extramural inventions (web site: <http://ctep.cancer.gov/industry>). Although this CRADA does not grant to Collaborator any rights to Inventions made or Raw Data generated by NCI's contractors or grantees, as they are not parties to this CRADA, NCI agrees that:

8.8.1 Subject to the other provisions of Article 8 of this CRADA, NCI will maintain, to the extent permitted by law, all Clinical Data in NCI's Possession and Control as Confidential Information, and make them available to Collaborator for its own use and for exclusive use in obtaining regulatory approval for the commercial marketing of Investigational Agent and related CRADA Subject Inventions. Similarly, NCI will also maintain, to the extent permitted by law, all data generated in preclinical and non-clinical studies that are in NCI's possession and control as Confidential

Information, and make them available to Collaborator for its own use and for exclusive use in obtaining regulatory approval for the commercial marketing of Investigational Agent and related CRADA Subject Inventions. Collaborator will not publish any such data provided under the CRADA without NCI's permission. Accordingly, said data shall not be transferable by Collaborator to any third party, except to Collaborator affiliates and development partners, without the written permission of the NCI. Following NCI's permission, the third party shall enter into a Confidential Disclosure Agreement with the NCI and Collaborator, if requested by NCI, before any data can be transferred.

8.8.2 With regard to Collaborator's Confidential Information, NCI will require the Clinical Investigators to agree to confidentiality provisions at least as restrictive as those provided in this CRADA and to Collaborator's use of data in accordance with Paragraph 8.8.1 for obtaining regulatory approval for marketing Investigational Agent.

8.8.3 If Collaborator wants access to Raw Data or any other data in the possession of the Clinical Investigators working with Investigational Agent under a Funding Agreement or other agreements, Collaborator must first contact the Regulatory Affairs Branch (RAB), CTEP, NCI [Telephone 301-496-7912; anshers@mail.nih.gov]. Subsequent to authorization by RAB, Collaborator may directly contact the Clinical Investigators. Collaborator will bear any costs associated with Raw Data provided in formats customized for Collaborator, which costs will be paid by Collaborator directly to the Clinical Investigators.

8.8.4 Collaborator's right to access Clinical Data in NCI's Possession and Control under Paragraph 8.8 is dependent upon Collaborator's continued development and commercialization of Investigational Agent, If Collaborator fails to continue development or commercialization of Investigational Agent without the transfer of its development efforts to another party within ninety (90) days of discontinuation, NCI has the right to make Clinical Data in NCI's Possession and Control available to a third party.

Add a new **Article 8.9** as follows:

8.9 **Multi-Party Data Rights.** For clinical protocol(s) where Investigational Agent is used in combination with another investigational agent supplied to NCI pursuant to a CTA or CRADA between NCI and an entity not a Party to this CRADA [hereinafter referred to as "Third Party"], the access and use of Multi-Party Data by the Collaborator and Third Party shall be co-exclusive as follows:

8.9.1 NCI will provide both Collaborator and Third Party with notice regarding the existence and nature of the agreements governing their collaborations with NIH, the design of the proposed combination protocol(s), and the existence of any obligations that might restrict NCI's participation in the proposed Combination protocols.

8.9.2 Collaborator shall agree to permit use of the Multi-Party Data from these trials by Third Party to the extent necessary to allow Third Party to develop, obtain regulatory approval for, or commercialize its own investigational agent(s). However, this provision

will not apply unless Third Party also agrees to Collaborator's reciprocal use of Multi-Party Data.

8.9.3 Collaborator and Third Party must agree in writing prior to the commencement of the combination trial(s) that each will use the Multi-Party Data solely for the development, regulatory approval, and commercialization of its own investigational agent(s).

Add a new **Article 8.10** as follows:

8.10 **Access, review and receipt of Identifiable Private Information.** Collaborator access to and review of Identifiable Private Information shall be only for on-site quality auditing. Collaborator will receive Identifiable Private Information only if necessary for purposes of satisfying FDA or other health authorities' reporting requirements, and for internal research purposes, directly related to obtaining regulatory approval of Investigational Agent. Collaborator is prohibited from access, review, receipt, or use of such information for other purposes. All IRB approved protocols and informed consent documents related to this research project will clearly describe this practice. If the Collaborator will have access to Identifiable Private Information, the protocol and the informed consent must clearly state (i) the existence of the Collaborator; (ii) the Collaborator's access to Identifiable Private Information, if any; and (iii) the extent to which confidentiality will be maintained. For clinical protocol(s) involving a third party, the other party's access, review, receipt, or use of Identifiable Private Information shall be subject to the same limitations as described in this Article 8.10.

10.6 **Collaborator Failure to Continue Development.** If Collaborator suspends development of the Investigational Agent without the transfer of its active development efforts, assets, and obligations to a third party within ninety (90) days of discontinuation, Collaborator agrees that ICD may continue developing the Investigational Agent. In that event, the following will apply:

10.6.1 Collaborator agrees to transfer to ICD all information necessary to enable ICD to contract for the manufacture of the Investigational Agent and, unless abandoned for reasons relating to safety as determined by the data safety monitoring board, to provide the Investigational Agent (and Placebo, if any) in Collaborator's inventory to ICD or arrange for an independent contractor to manufacture and provide Investigational Agent to NCI for two years or until the completion of ongoing mutually agreed to studies.

10.6.2 Further, Collaborator hereby grants to ICD a nonexclusive, irrevocable, world-wide, paid-up license to practice, or have practiced for or on behalf of the Government, any Background Invention that Collaborator may currently have or will obtain on the Investigational Agent, its manufacture, or on any method of using the Investigational Agent for the indication(s) described in the Research Plan, including the right to sublicense to third parties.

13.9 **Independent Contractors.** The relationship of the Parties to this CRADA is that of independent contractors and not agents of each other or joint venturers or partners. Each Party will maintain sole and exclusive control over its personnel and operations. If Collaborator elects to perform any portion of the Research Plan through a contractor or consultant, Collaborator agrees to incorporate into such contract all provisions necessary to ensure that the work of such contractor or consultants is governed by the terms of the CRADA, including, but not limited to a provision for the assignment of inventions of the contractor or consultant to the Collaborator.

13.12 **Export Controls.** Collaborator agrees to comply with U.S. export law and regulations, including 21 U.S.C. 382 and 21 CFR Part 312.110. If Collaborator has a need to transfer any CRADA Materials made in whole or in part by ICD, or ICD Materials, or ICD's Confidential Information to a person located in a country other than the United States, to an Affiliate organized under the laws of a country other than the United States, or to an employee of Collaborator in the United States who is not a citizen or permanent resident of the United States, Collaborator will acquire any and all necessary export licenses and other appropriate authorizations.

13.14 **Survivability.** The provisions of Paragraphs [3.3, 3.4, 3.8, 4.2, 4.3, 4.4, 5.3, 5.4, 6.1-9.2, 10.3-10.6, 11.1, 11.2, 12.1-12.3, 13.1-13.3, 13.7, 13.10 and 13.14] will survive the expiration or early termination of this CRADA.

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

THIS LICENSE AGREEMENT is made and entered into as of this 13 day of September, 2005, by and between the MEDICAL COLLEGE OF GEORGIA RESEARCH INSTITUTE, INC., a nonprofit Georgia corporation with offices located in the Medical College of Georgia, 1462 Laney Walker Blvd, Room CA-2125, Augusta, Georgia 30912-4810 (hereinafter referred to as "MCGRI") and NEWLINK GENETICS CORPORATION, a Delaware corporation with corporate headquarters located at 2901 South Loop Drive Suite 3900, Ames, Iowa 50010 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, the Medical College of Georgia Research Institute (MCGRI) is the assignee of all right, title, and interest in inventions developed by employees of The Medical College of Georgia (MCG) and is responsible for the protection and commercial development of such inventions; and

WHEREAS, David Munn, Andrew Mellor and Stephen Peiper, during the course of his/her/their employment by the Medical College of Georgia (MCG), developed certain inventions [*] as more fully defined in Exhibit A; and

WHEREAS, MCGRI wants to have the inventions further developed and made available in commerce for use by the public; and

WHEREAS, LICENSEE represents that it has the necessary expertise and resources to fully develop and commercialize the inventions; and

WHEREAS, LICENSEE wishes to obtain certain rights to pursue the development and commercialization of the inventions; and

WHEREAS, MCGRI wishes to grant LICENSEE such rights in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, for and in consideration of the mutual covenants and the premises herein contained, the parties, intending to be legally bound, hereby agree as follows.

ARTICLE 1. DEFINITIONS

The following terms as used herein shall have the following meaning:

1.1 "Affiliate" shall mean, with respect to Licensee, a person, corporation or other entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with Licensee. For the purposes of this definition, "control" means the direct or indirect ownership of at least twenty percent (20%) of the outstanding voting securities of the controlled entity.

1.2 "Agreement" or "License Agreement" shall mean this Agreement, including all Exhibits attached to this Agreement.

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1.3 "Field of Use" means any and all medical applications, including without limitation, prevention, diagnostics, and therapy, including action as an adjuvant.

1.4 "Improvement" shall mean any invention, that is conceived or reduced to practice in the laboratory of any Inventor (or of his/their collaborators), that relates to an invention claimed in or covered by the Licensed Patents or which is a modification of the inventions claimed in or covered by the Licensed Patents.

1.5 "Indemnitees" shall mean MCGRI, MCGRI's officers and directors, MCG, MCG's employees, and the Inventors, and their heirs, executors, administrators, and legal representatives.

1.6 "Inventors" shall mean David Munn, Andrew Mellor and/or Stephen Peiper, as applicable with respect to each Licensed Patent.

1.7 "License Agreement Year" shall mean the period from July 1 through June 30 of each year during the term of this Agreement.

1.8 "Licensed Patents" shall mean the patent applications and patents identified in EXHIBIT A hereof and any patent applications controlled by MCGRI that claim Improvements, together with all divisionals, continuations, continuations-in-part (to the extent directed to the subject matter specifically described in such patent applications and patents), reissues, and foreign counterparts of such applications or patents.

1.9 "Licensed Product(s)" shall mean any process, service, or product, the manufacture, use, or sale of which is covered by a Valid Claim or incorporates or uses any Licensed Technology.

1.10 "Licensed Technology" shall mean all information and materials proprietary to MCGRI, including designs, technical information, know how, knowledge, data, specifications, test results and other information relating to the Licensed Patents and disclosed by MCGRI to LICENSEE on the date of this Agreement or during the term hereof on an exclusive, confidential basis and which is not available from another source.

1.11 "Licensed Territory" means worldwide.

1.12 "Net Selling Price" of Licensed Products shall mean the gross revenues received by Licensee or its Affiliate from a purchaser of a Licensed Product that is not a Sublicensee of Licensee or its Affiliate (unless such Sublicensee is the end user of such Licensed Product, in which case the amount received therefore shall be deemed to be the amount that would be billed to a third party end user in an arm's-length transaction) including, if applicable, the value of all properties and services received in consideration of a Sale of Licensed Products, less the following items, as allocable to such Licensed Product (if

not previously deducted from the amount invoiced): (i) trade discounts, credits or allowances; (ii) credits or allowances additionally granted upon returns, rejections or recalls; (iii) freight, shipping and insurance charges; (iv) taxes, duties or other governmental tariffs (other than income taxes); and (v) government mandated rebates. Where a Sale is deemed consummated by a gift, use, or other disposition

of Licensed Products for other than a selling price stated in cash, the term "Net Selling Price" shall mean the average gross selling price billed by LICENSEE in consideration of the Sale of comparable Licensed Products during the three (3) month period immediately preceding such Sale, without reduction of any kind; provided, however, that transfers and use of Licensed Products in clinical trials or for promotional or sampling purposes shall not be considered in determining Net Selling Price.

If the Licensed Products are Sold in combination with one or more other products or services which are not Licensed Products, Net Selling Price for such combination products will be calculated on a country-by-country basis by multiplying actual net selling price of such combination products by the fraction $A/(A+B)$ where A is the average invoice price during the period of the Licensed Product when Sold separately, and B is the average invoice price of any other product(s) or services in the combination when Sold separately by Licensee. If the products or services in the combination that are not Licensed Products are not Sold separately by Licensee, Net Selling Price shall be calculated by multiplying actual net selling price of such combination products by the fraction A/C where A is the average invoice price of the Licensed Product when Sold separately and C is the average invoice price of the combination product. If neither the Licensed Product nor the combination product is Sold separately by Licensee, then Net Selling Price for royalty purposes hereunder for Sales of such combination product shall be determined by multiplying the Net Selling Price (calculated in the manner described above) of such combination product by a fraction, determined by mutual agreement of the parties, that reflects the relative contribution in value that the Licensed Product included in the combination product makes to the total value of such combination product.

1.13 "Sale" or "Sold" shall mean the sale, transfer, exchange, or other disposition of Licensed Products for value to a party other than LICENSEE or its Affiliate. Sales of Licensed Products shall be deemed consummated upon the first to occur of: (a) receipt of payment from the purchaser; or (b) if otherwise transferred, exchanged, or disposed of for consideration other than cash whether by gift or otherwise when such transfer, exchange, gift, or other disposition occurs.

1.14 "MCG" shall mean The Medical College of Georgia.

1.15 "Sublicensee" shall mean a third party to whom Licensee or its Affiliate has granted a sublicense under the Licensed patents to make, use, sell, offer to sell or import Licensed Products, beyond the mere right to purchase Licensed Product from Licensee or its Affiliate.

1.16 "Valid Claim" shall mean a claim included among the issued and unexpired Licensed Patents so long as such claim shall not have been irrevocably abandoned or held invalid in an unappealable decision of a court or other authority of competent jurisdiction.

ARTICLE 2. GRANT OF LICENSE

2.1 License. MCGRI hereby grants LICENSEE and its Affiliates an exclusive right and license under the Licensed Patents and Licensed Technology to make, use, import, offer to sell and sell Licensed Products for the Field of Use in the Licensed Territory during the term of this Agreement.

2.2 Sublicensing. Licensee and its Affiliates may sublicense to one or more third parties the rights granted under this Agreement, subject to the prior approval of MCGRI, not to be unreasonably withheld or delayed. If this Agreement is terminated for any reason, any sublicenses granted shall remain in full force and effect and be directly enforceable by MCGRI.

2.3 Retained License. MCGRI retains on behalf of itself, MCG, the Inventors and any academic research collaborators, a royalty-free right and license to make and use Licensed Products and to practice Licensed Technology for research and educational purposes only.

2.4 No Implied License. The license and right granted in this Agreement shall not be construed to confer any rights upon LICENSEE by implication, estoppel, or otherwise as to any technology not specifically identified in this Agreement as Licensed Patents or Licensed Technology.

2.5 Government Rights. The Licensed Patents, Licensed Technology, or portions thereof may have been developed with financial or other assistance through grants or contracts funded by the United States government. LICENSEE acknowledges that in accordance with Public Law 96-517 and other statutes, regulations, and Executive Orders as now exist or may be amended or enacted, the United States government has certain rights in the Licensed Patents and Licensed Technology. LICENSEE shall take all action necessary to enable MCGRI to satisfy its obligations under any federal law relating to the Licensed Patents or Licensed Technology.

2.6 Publications. MCGRI shall have the right to publish any information included in the Licensed Patents subject to the provisions of this § 2.5 and Article 9. MCGRI shall provide to Licensee copies of any proposed presentation or publication or abstract disclosing information included in the Licensed Patents prior to the submission of such documents. Proposed publications and abstracts shall be supplied at least thirty (30) days in advance of submission to a journal, editor, or third party. Licensee may request reasonable changes and/or deletions be made in any proposed publication in order to protect the Licensed Patents and Licensee's confidential information. MCGRI (or any of its personnel) will consider such changes but retains the sole right to determine whether such changes or deletions will be made; but MCGRI agrees that it will honor (and will cause its personnel to honor) Licensee's reasonable requests to remove any confidential information of Licensee included in any such public disclosure. MCGRI agrees to delay such proposed public disclosure for up to ninety (90) days and to use commercially reasonable efforts to cooperate in the filing of a U.S. patent application as provided in Article 7 covering such subject matter prior to public disclosure.

ARTICLE 3. DILIGENCE AND COMMERCIALIZATION

3.1 Licensee agrees to invest [*] toward the further development of Licensed Products in the field of cancer therapy within eighteen (18) months after the execution date of the Agreement. If Licensee fails to make the required investment, and does not remedy that failure within sixty (60) days after written notice to Licensee, MCGRI, as its sole and exclusive remedy for such failure, may convert Licensee's right and license in the Field of Use for oncology to non-exclusive.

3.2 Licensee agrees to provide to MCGRI an annual report regarding Licensee's (or its Affiliates' or Sublicensees') progress in other areas of Licensed Product development (outside of cancer). MCGRI has the sole right to determine if non-cancer areas are receiving due diligence in product development in accordance with standards common to the industry, taking into account efficacy, the competitiveness of alternative products in the marketplace, the patent and other proprietary position of the Licensed Products, the likelihood of regulatory approval given the regulatory structure involved, the profitability of the Licensed Product and alternative products and all other relevant factors. If Licensee has not met basic product development milestones, and does not remedy that failure within sixty (60) days after written notice from MCGRI, Licensee's right and license in that area of the Field of Use (specifically, infectious disease or diagnostics) will revert from exclusive to non-exclusive for that specific application.

ARTICLE 4. CONSIDERATION FOR LICENSE

4.1 License Fee. As partial consideration for the license granted to LICENSEE under this Agreement, LICENSEE shall pay MCGRI a license fee of [*]. The license fee shall be paid in two equal installments of [*]. The first such installment shall be due within sixty (60) days of signing this Agreement, and the second installment shall be due no later than six (6) months after the first payment. Licensee will issue to MCGRI [*] shares of Licensee's common stock (such number of shares to be adjusted for any stock dividends, combinations, splits, recapitalizations, and the like occurring after the effective date of the Agreement), subject to execution and delivery by MCGRI of a stock subscription agreement in the form of Exhibit B hereto. In regard to Improvement technologies created after the signing of this Agreement, if LICENSEE elects to include such technologies under this Agreement, there shall be a one-time License Fee of [*] per technology, upon payment of which the new technology is considered part of this Agreement.

4.2 Sublicensing Fee. Licensee shall pay MCGRI [*] of any fees or payments or remuneration paid to LICENSEE by a Sublicensee in relation to this License and for rights to all or part of the Licensed Patents (other than research funding, equity, loans or patent costs or fee

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reimbursements). Such percentage shall decrease [*] for each year of the term of this Agreement in which Licensee expends at least [*] towards the development of Licensed Products, but not to go below a floor of [*].

4.3 Royalties. As partial consideration for the license granted to LICENSEE under this Agreement, LICENSEE shall pay MCGRI the following royalties based on the Net Selling Price of the applicable Licensed Products Sold by LICENSEE:

[*]

Notwithstanding the foregoing, if Licensee is required to pay a royalty under a patent license from any third party in order to sell a Licensed Product, then Licensee may reduce the royalty otherwise payable to MCGRI on the Net Selling Price of such Licensed Product by [*] of the royalty amounts paid to such third party; provided, however, that in no event will the royalty payable to MCGRI hereunder with respect to such Licensed Product [*]. Royalties shall be payable on a Licensed Product-by-Licensed Product and country-by-country basis from first commercial sale of a Licensed Product in a country until the expiration of the last to expire valid claim of the Licensed Patents claiming the manufacture, use or sale of such Licensed Product in such country.

4.4 Minimum Royalties. Prior to the first commercial sale of a Licensed Product, Licensee shall pay to MCGRI an annual license fee equal to [*] per License Agreement Year, within sixty (60) days following the end of each License Agreement Year. Following the first commercial sale of a Licensed Product, within sixty (60) days after the end of each License Agreement Year during the term of this Agreement thereafter, if earned royalties for such License Agreement Year are less than [*], Licensee will pay to MCGRI a minimum annual royalty equal to the difference (if any) between [*] and earned royalties for such year. For any partial year for which a minimum annual royalty is due hereunder, the amount of such minimum annual royalty shall be pro-rated based on a 365-day year.

4.5 Reimbursement for Patent Expenses. LICENSEE shall reimburse MCGRI for all reasonable, documented out-of-pocket fees, costs, and expenses hereafter during the term of this Agreement paid or incurred by MCGRI in filing, prosecuting, and maintaining the Licensed Patents in the Licensed Territory. LICENSEE shall provide such reimbursement for patent expenses within 30 days of receipt of the itemized invoice.

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4.6 Milestone Payments to MCGRI.

4.6.1 Within sixty (60) days of the first achievement by any Licensed Product of the following milestone events, Licensee shall pay (or issue) to MCGRI the indicated consideration:

[*]

4.6.1.1 Initiation of [*] [*]

4.6.1.2 Completion of [*] [*]

For clarity, each milestone payment above shall be due only once for a particular [*] regardless of the number of molecules directed towards such [*] pursued in a particular disease category.

4.6.1.3 Within sixty (60) days of the achievement by each Licensed Product of the following milestone events, Licensee shall pay to MCGRI the indicated amount:

4.6.1.4 [*] [*]

4.6.1.5 [*] [*]

For clarity, each milestone payment indicated above shall be due each time the milestone event is achieved by one or more Licensed Products.

ARTICLE 5. REPORTS AND PAYMENTS

5.1 Within sixty (60) days of September 30, December 31, March 31, and June 30 of each year during the term of this Agreement, up to and including September 30, December 31, March 31 and June 30 following the termination or expiration of this Agreement, LICENSEE shall render a written report to MCGRI setting forth for the preceding calendar quarter, the following as may be applicable under the royalty provisions hereof:

- (a) the Net Selling Price of all Licensed Products Sold by LICENSEE, and its Affiliates and Sublicensees under this Agreement; and
- (b) the amount of royalty payable; and
- (c) any other information reasonably necessary to show the basis on which such royalty has been computed; and
- (d) the title of the Licensed Patent(s), the Inventor(s), and the five digit MCG code(s) for the Licensed Patent(s); and
- (e) in case no payment is due for any calendar quarter hereunder, LICENSEE shall so report.

5.2 Each royalty report shall be accompanied by the payment of all royalties due for the quarter calendar year in question. Any minimum royalty payment due under Article 4 shall accompany the report for the quarter ending on June 30 of the applicable License Agreement Year.

5.3 All royalties shall be paid in United States funds collectible at one hundred percent (100%) of face value in New York, New York, U.S.A. For purposes of computing the royalty payment on

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Sales outside the United States, the royalty payment hereunder shall first be determined in the foreign currency of the country in which Licensed Products are Sold and then converted to United States dollars at the spot rate published by the Wall Street Journal (U.S. edition) on the last day of the quarter for which payment is due.

5.4 In high inflation countries where LICENSEE uses accounting treatment under Statement of Financial Accounting Standards No. 52, Paragraph 11, or the successor equivalent Standard, LICENSEE may for each such country at the end of each quarter convert each month's Sales in that quarter to United States dollars by assuming all Sales in that month occurred on the last day of the month, computing the collection date for that month's Sales to United States dollars at the forecasted exchange rate for that computed collection date; differences between the forecasted exchange rate and the actual exchange rate are to be corrected in the first quarter in which known.

5.5 If Licensed Products are Sold in a country in which conditions or legal restrictions exist which prohibit remittance of United States dollars, LICENSEE shall have the right and option to make the royalty payment for such country by depositing the amount thereof in the currency of the country of Sale at LICENSEE's election, to MCGRI's account in a bank designated by MCGRI in such country.

5.6 Interest. Payments required under this Agreement shall, if overdue, bear interest until payment at a per annum rate [*], on the due date. The payment of such interest shall not foreclose MCGRI from exercising any other rights it may have because any payment is late.

5.7 All payments and reports due under this Agreement shall be made in person or via the United States mail or private carrier to the following address:

Office of Technology Transfer and Economic Development
Medical College of Georgia
Attn: Associate Vice President of Technology Transfer & Economic Development
CA-2125
Medical College of Georgia
Augusta, Georgia 30912-9824
Facsimile: (706) 721-2917

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5.8 All payments should be made payable to: **The Medical College of Georgia Research Institute.**

ARTICLE 6. RECORDS

6.1 Records of Sales. During the term of this Agreement and for a period of three (3) years thereafter, LICENSEE shall keep at its principal place of business true and accurate records of all Sales in accordance with general accepted accounting principles in the respective country where such Sales occur and in such form and manner so that all royalties owed to MCGRI may be readily and accurately determined. LICENSEE shall furnish MCGRI copies of such records upon MCGRI's request, which shall not be made more often than once per License Agreement Year.

6.2 Audit of Records. MCGRI shall have the right, from time to time at reasonable times during normal business hours through an independent certified public accountant, to examine the records of LICENSEE in order to verify the calculation of any royalties payable under this Agreement. Such examination and verification shall not occur more than once each License Agreement Year and the calendar year immediately following termination of this Agreement. Unless otherwise agreed in writing by LICENSEE, the fees and expenses of performing such examination and verification shall be borne by MCGRI. If such examination reveals an underpayment by LICENSEE of more than five percent (5%) for any quarter examined, LICENSEE shall pay MCGRI the amount of such underpayment plus interest and shall reimburse MCGRI for all expenses of the accountant performing the examination.

ARTICLE 7. PATENT PROSECUTION

7.1 Prosecution and Maintenance of Licensed Patents. The prosecution and maintenance of the Licensed Patents shall be the primary responsibility of MCGRI using counsel reasonably acceptable to LICENSEE. MCGRI shall keep LICENSEE informed as to all developments with respect to Licensed Patents, including by providing LICENSEE, in a timely manner prior to their due date, with copies of all official documents and correspondence relating to the prosecution, maintenance, and validity of the Licensed Patents. LICENSEE shall be afforded reasonable opportunities to advise MCGRI and cooperate with MCGRI in such prosecution and maintenance. LICENSEE shall advise MCGRI in which countries LICENSEE desires patents be filed, and MCGRI will comply with any such requests. MCGRI shall not unreasonably withhold consent to amend any patent application to include any claims related to Licensed Patents and/or Licensed Technology reasonably requested by LICENSEE to protect the Licensed Products

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contemplated to be sold under this Agreement. If LICENSEE should fail to timely make reimbursement for patent expenses incurred under this paragraph as required in Article 4.5 of this Agreement, MCGRI shall have no further obligation to prosecute or maintain the Licensed Patents. MCGRI shall not finally abandon prosecution of any patent application without first notifying LICENSEE sixty (60) days prior to any bar date, of MCGRI's intention and reason therefore, and providing LICENSEE with reasonable opportunity to assume responsibility for prosecution, maintenance and associated costs of such Licensed Patents.

LICENSEE, upon ninety (90) days advance written notice to MCGRI, may advise MCGRI that it no longer wishes to pay expenses for filing, prosecuting or maintaining one or more Licensed Patents. MCGRI may, at its option, elect to pay such expenses or permit such Licensed Patents to become abandoned or lapsed. If MCGRI elects to pay such expenses, such patents shall not be subject to any license granted to LICENSEE hereunder.

7.2 Extension of Licensed Patents. LICENSEE may request that MCGRI have the normal term of any Licensed Patent extended or restored under a country's procedure of extending life for time lost in government regulatory approval processes, and the expense of same shall be borne in accordance with the terms of Article 4.5. LICENSEE shall assist MCGRI to take whatever action is necessary to obtain such extension. In the case of such extension, royalties pursuant to Article 4 hereof shall be payable until the end of the extended life of the patent. In the event that LICENSEE does not elect to extend Licensed Patent(s), MCGRI may, at its own expense, effect the extension of such Licensed Patent(s). If MCGRI elects to pay such expenses, such extended Licensed Patents shall not be subject to any license granted to LICENSEE hereunder.

ARTICLE 8. ABATEMENT OF INFRINGEMENT

8.1 Each party shall promptly inform the other party of any suspected infringement of any Licensed Patents. During the term of this Agreement, MCGRI and LICENSEE shall have the right to institute an action for infringement of the Licensed Patents against any such third party in accordance with the following and subject to the rights of any third parties granted licenses to practice the Licensed Patents by MCGRI:

(a) If MCGRI and LICENSEE agree to institute suit jointly, the suit shall be brought in both their names [*] and any recovery or settlement [*]. LICENSEE and MCGRI shall agree upon the manner in which they shall exercise control over such action. MCGRI may, if it so desires, also be represented by separate counsel of its own selection. The fees for which counsel shall be paid by MCGRI;

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(b) In the absence of agreement to institute a suit jointly, MCGRI may institute suit, and, at its option, name LICENSEE as a plaintiff. [*]of such litigation and shall be entitled to [*]; and

(c) In the absence of agreement to institute a suit jointly and if MCGRI notifies LICENSEE that it has decided not to join in or institute a suit, as provided in (a) or (b) above, LICENSEE may institute suit and, at its option, name MCGRI as a plaintiff. [*]of such litigation, including defending any counterclaims brought against MCGRI and paying any judgments rendered against MCGRI, and shall be entitled to [*].

8.2 Should either MCGRI or LICENSEE commence a suit under the provisions of this Article and thereafter elect to abandon such suit, the abandoning party shall give timely notice to the other party who may, if it so desires, continue prosecution of such suit, provided that [*] shall be as agreed upon between MCGRI and LICENSEE.

ARTICLE 9. CONFIDENTIALITY

9.1 LICENSEE shall not, without the express written consent of MCGRI, for any reason or at any time either during or subsequent to the term of this Agreement disclose any information contained in the Licensed Patents or Licensed Technology or any other information pertaining to the Licensed Patents and Licensed Technology (collectively referred to as "Proprietary Information") to third parties other than Affiliates and LICENSEE's sublicensees. This obligation of nondisclosure shall not extend to information:

(a) which LICENSEE can demonstrate through documentation to have been within LICENSEE's legitimate possession prior to the time of disclosure of such information to LICENSEE by MCGRI, MCG, or the Inventors;

(b) which was in the public domain prior to disclosure by MCGRI, MCG, or the Inventors, as evidenced by documents published prior to such disclosure;

- (c) which, after disclosure by MCGRI, MCG, or the Inventors, comes into the public domain through no fault of LICENSEE;
- (d) which is disclosed to LICENSEE by a third party having legitimate possession of the information and the unrestricted right to make such disclosure.
- (e) which is required by a valid court order or law, in which case each party would notify the other.

9.2 All reports provided to MCGRI pursuant to this Agreement shall be treated as confidential information of Licensee and shall not be disclosed to any third party without the prior written consent of Licensee. Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party; provided, however, that disclosures may be made as required by securities or other applicable laws, or to actual or prospective investors or corporate partners, or to a party's accountants, attorneys, and other professional advisors.

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9.3 Prior Agreements. The provisions of this Agreement supersede and shall be substituted for any terms of any prior confidentiality agreement between LICENSEE and MCGRI which are not consistent with this Agreement.

ARTICLE 10. MERCHANTABILITY AND EXCLUSION OF WARRANTIES

10.1 LICENSEE possesses the necessary expertise and skill in the technical areas in which the Licensed Products and Licensed Technology are involved to make, and has made, its own evaluation of the capabilities, safety, utility, and commercial application of the Licensed Patents and Licensed Technology. ACCORDINGLY, to the best of MCGRI's knowledge based on reasonable inquiry, MCGRI represents and warrants that: (i) the execution, delivery, and performance of this Agreement have been duly authorized by all necessary corporate action on the part of MCGRI; (ii) MCGRI is the sole and exclusive owner of all right, title, and interest in the Licensed Patents; (iii) it has the right to grant the rights and licenses granted herein; (iv) it has not granted any third party any license, right or interest in any of the Licensed Patents that is inconsistent with the rights granted to Licensee herein and will not grant any third party such a right during the term of this Agreement; and (v) there are no threatened or pending actions, suits, investigations, claims, or proceedings in any way relating to the Licensed Patents.

10.2 Except as expressly set forth in Section 10.1, MCGRI MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WITH RESPECT TO THE LICENSED PATENTS OR LICENSED TECHNOLOGY AND EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ANY OTHER IMPLIED WARRANTIES WITH RESPECT TO THE CAPABILITIES, SAFETY, UTILITY, OR COMMERCIAL APPLICATION OF LICENSED PATENTS OR LICENSED TECHNOLOGY.

ARTICLE 11. DAMAGES, INDEMNIFICATION, AND INSURANCE

11.1 NO LIABILITY. MCGRI shall not be liable to LICENSEE or LICENSEE's customers for special, incidental, indirect, or consequential damages resulting from defects in the design, testing, labeling, manufacture, or other application of Licensed Products manufactured, tested, designed, or Sold pursuant to this Agreement.

11.2 Indemnification. LICENSEE shall defend, indemnify, and hold harmless the Indemnitees from and against any and all loss, liability, expense, or damage (including investigative costs, court costs and attorneys' fees) Indemnitees may suffer, pay, or incur as a result of claims, demands or actions brought by a third party against any of the Indemnitees arising or alleged to arise by reason of or in connection with

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[*] caused or contributed to in whole or in part by LICENSEE's [*], except, in each case, to the extent such claims, demands or actions result from the [*] of any Indemnitee or the [*] in this Agreement. LICENSEE's obligations under this Article shall survive the expiration or termination of this Agreement for any reason.

11.3 Insurance. Without limiting LICENSEE's indemnity obligations under the preceding paragraph, LICENSEE shall maintain throughout the term of this Agreement and for ten (10) years thereafter a liability insurance policy which:

- (a) insures Indemnitees for all claims, damages, and actions mentioned in Article 10.1 of this Agreement;
- (b) includes a contractual endorsement providing coverage for all liability which may be incurred by Indemnitees in connection with this Agreement;
- (c) requires the insurance carrier to provide MCGRI with no less than thirty (30) days written notice of any change in the terms or coverage of the policy or its cancellation; and
- (d) prior to the initiation of the first clinical trial involving a Licensed Product, provides product liability coverage in an amount no less than two million dollars (\$2,000,000) per occurrence for bodily injury and one million dollars (\$1,000,000) per occurrence for property damage, subject to a reasonable aggregate amount.

11.4 Notice of Claims. LICENSEE shall promptly notify MCGRI of all claims involving the Indemnitees and will advise MCGRI of the policy amounts that might be needed to defend and pay any such claims.

ARTICLE 12. TERM AND TERMINATION

12.1 Term. Unless sooner terminated as otherwise provided in this Agreement, the term of this Agreement shall commence on the date hereof and shall continue until the date of expiration of the last to expire of the Licensed Patents, including any renewals or extensions thereof.

12.2 Termination. MCGRI shall have the right to terminate this Agreement upon the occurrence of any one or more of the following events:

- (a) failure of LICENSEE to make any two payments consecutive required pursuant to this Agreement when due; or
- (b) failure of LICENSEE to render reports to MCGRI as required by this Agreement; or

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- (c) failure of LICENSEE to notify MCGRI of intent to file bankruptcy as set forth in Article 12.3 below;
- (d) the insolvency of LICENSEE; or
- (e) the institution of any proceeding by LICENSEE under any bankruptcy, insolvency, or moratorium law; or
- (f) any assignment by LICENSEE of substantially all of its assets for the benefit of creditors; or
- (g) placement of LICENSEE's assets in the hands of a trustee or a receiver unless the receivership or trust is dissolved within thirty (30) days thereafter; or
- (h) the breach of any other material term of this Agreement.

12.3 Notice of Bankruptcy. The LICENSEE must inform MCGRI of its intention to file a voluntary petition in bankruptcy or of another's intention to file an involuntary petition in bankruptcy to be received at least thirty (30) days prior to filing such a petition. A party's filing without conforming to this requirement shall be deemed a material, pre-petition incurable breach.

12.4 Exercise. MCGRI may exercise its right of termination by giving LICENSEE, its trustees or receivers or assigns, thirty (30) days prior written notice of MCGRI's election to terminate. Upon the expiration of such period, this Agreement shall automatically terminate unless the LICENSEE has cured the breach. Such notice and termination shall not prejudice MCGRI's right to receive royalties or other sums due hereunder and shall not prejudice any cause of action or claim of MCGRI accrued or to accrue on account of any breach or default by LICENSEE.

12.5 Failure to Enforce. The failure of MCGRI at any time, or for any period of time, to enforce any of the provisions of this Agreement shall not be construed as a waiver of such provisions or as a waiver of the right of MCGRI thereafter to enforce each and every such provision.

12.6 Termination by LICENSEE. LICENSEE shall have the right to terminate this Agreement upon the occurrence the breach of a material term of this Agreement by MCGRI. In addition, LICENSEE may, upon sixty (60) days written notice to MCGRI, terminate this Agreement by doing all of the following: ceasing to make, have made, use, import, sell and offer for sale all Licensed Products; returning any confidential materials provided to Licensee by MCGRI in connection with this Agreement; paying all amounts owed to MCGRI under this Agreement, up to the date of termination.

12.7 Exercise. LICENSEE may exercise its right of termination based upon a material breach of this Agreement by MCGRI by giving MCGRI thirty (30) days prior written notice of LICENSEE's election to terminate. Upon the expiration of such period, this Agreement shall automatically terminate unless MCGRI has cured the breach. Such notice and termination shall not prejudice LICENSEE's right to pursue any other remedies available to LICENSEE at law.

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12.8 Effect. In the event this Agreement is terminated for any reason whatsoever, LICENSEE shall return, or at MCGRI's direction destroy, all plans, drawings, papers, notes, writings and other documents, samples, organisms, biological materials and models pertaining to the Licensed Patents and Licensed Technology, retaining no copies, and shall refrain from using or publishing any portion of the Licensed Patents or Licensed Technology as provided in Article 8 of this Agreement. Upon termination of this Agreement, LICENSEE shall cease manufacturing, processing, producing, using, Selling, or distributing Licensed Products; provided, however, that LICENSEE may continue to Sell in the ordinary course of business for a period of one (1) year reasonable quantities of Licensed Products which are fully manufactured and in LICENSEE's normal inventory at the date of termination if (a) all monetary obligations of LICENSEE to MCGRI have been satisfied and (b) royalties on such sales are paid to MCGRI in the amounts and in the manner' provided in this Agreement. The provisions of Articles 9, 10, and 11 of this Agreement shall remain in full force and effect notwithstanding the termination of this Agreement.

ARTICLE 13. ASSIGNMENT

This Agreement is dependent upon the special relationship between the parties and the special knowledge and unique skills of the LICENSEE. Therefore, LICENSEE shall not grant, transfer, convey, or otherwise assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of MCGRI, except that Licensee may assign this Agreement without the prior written consent of MCGRI, to any Affiliate, or in connection with the transfer or sale of all or substantially all of Licensee's business to which this Agreement relates to a third party, whether by merger, sale of stock, sale of assets or otherwise. This Agreement shall be assignable by MCGRI to MCG, or any other nonprofit corporation which promotes the education or research purposes of MCG.

ARTICLE 14. MISCELLANEOUS

14.1 Export Controls. LICENSEE acknowledges that MCGRI is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes, and other commodities and that MCGRI's obligations under this Agreement are contingent upon compliance with applicable United States export laws and regulations. The transfer of technical data and commodities may require a license from the cognizant agency of the United States government or written assurances by LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without the prior approval of certain United States agencies. MCGRI neither represents that an export license shall not be required nor that, if required, such export license shall issue.

14.2 Legal Compliance. LICENSEE shall comply with all laws and regulations applicable to its manufacture, processing, producing, use, Selling, or distributing of Licensed Products.

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14.3 Independent Contractor. LICENSEE's relationship to MCGRI shall be that of a licensee only. LICENSEE shall not be the agent of MCGRI and shall have no authority to act for or on behalf of MCGRI in any matter. Persons retained by LICENSEE as employees or agents shall not by reason thereof be deemed to be employees or agents of MCGRI.

14.4 Patent Marking. LICENSEE shall mark Licensed Products Sold in the United States with United States patent numbers. Licensed Products manufactured or Sold in other countries shall be marked in compliance with the intellectual property laws in force in such foreign countries.

14.5 Use of Names. LICENSEE shall obtain the prior written approval of MCGRI, MCG, or the Inventors prior to making use of their names for any commercial purpose.

14.6 Place of Execution. This Agreement and any subsequent modifications or amendments hereto shall be deemed to have been executed in the State of Georgia, U.S.A. This Agreement shall not become effective or binding upon MCGRI until signed on its behalf by its Executive Director in the State of Georgia, U.S.A.

14.7 Governing Law. This Agreement and all amendments, modifications, alterations, or supplements hereto, and the rights of the parties hereunder, shall be construed under and governed by the laws of the State of Georgia and the United States of America. Only courts in the State of Georgia, U.S.A., shall have jurisdiction to hear and decide any controversy or claim between the parties arising under or relating to this Agreement.

14.8 Entire Agreement. This Agreement constitutes the entire agreement between MCGRI and LICENSEE with respect to the subject matter hereof and shall not be modified, amended or terminated except as herein provided or except by another agreement in writing executed by the parties hereto.

14.9 Severability. All rights and restrictions contained herein may be exercised and shall be applicable and binding only to the extent that they do not violate any applicable laws and are intended to be limited to the extent necessary so that they will not render this Agreement illegal, invalid or unenforceable. If any provision or portion of any provision of this Agreement not essential to the commercial purpose of this Agreement shall be held to be illegal, invalid or unenforceable by a court of competent jurisdiction, it is the intention of the parties that the remaining provisions or portions thereof shall constitute their agreement with respect to the subject matter hereof, and all such remaining provisions or portions thereof shall remain in full force and effect. To the extent legally permissible, any illegal, invalid or unenforceable provision of this Agreement shall be replaced by a valid provision which will implement the commercial purpose of the illegal, invalid or unenforceable provision. In the event that any provision essential to the commercial purpose of this Agreement is held to be illegal, invalid or

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unenforceable and cannot be replaced by a valid provision which will implement the commercial purpose of this Agreement, this Agreement and the rights granted herein shall terminate.

14.10 Force Majeure. Any delays in, or failure of, performance of any party to this Agreement shall not constitute default hereunder, or give rise to any claim for damages, if and to the extent caused by occurrences beyond the control of the party affected, including, but not limited to, acts of God, strikes or other work stoppages; civil disturbances, fires, floods, explosions, riots, war, rebellion, sabotage, acts of governmental authority or failure of governmental authority to issue licenses or approvals which may be required.

ARTICLE 15. NOTICES

All notices, statements, and reports required or contemplated herein by one party to the other shall be in writing and shall be deemed to have been given upon delivery in person or upon the expiration of five (5) days after deposit in a lawful mail depository in the country of residence of the party giving the notice, registered or certified airmail postage prepaid, and addressed as follows:

If to MCGRI:

Associate Vice President
Office of Technology Transfer & Economic Development
Medical College of Georgia Research Institute, Inc.
CA-2125
Medical College of Georgia
Augusta, Georgia 30912-9824
Facsimile: (706) 721-2917

With a copy to:

Legal Advisor
Medical College of Georgia Research Institute, Inc.
CJ-3301
Medical College of Georgia
Augusta, Georgia 30912-4810
Facsimile: (706) 721-7603

If to LICENSEE:

NewLink Genetics Corporation
Chief Medical Officer
2901 South Loop Dr, Suite 3900

Ames, IA 50010
Facsimile: (515) 296-5557

Either party hereto may change the address to which notices to such party are to be sent by giving notice to the other party at the address and in the manner provided above. Any notice herein required or permitted to be given may be given, in addition to the manner set forth above, by telex, facsimile or cable, provided that the party giving such notice obtains acknowledgement by telex, facsimile or cable that such notice has been received by the party to be notified. Notice made in this manner shall be deemed to have been given when such acknowledgement has been transmitted.

IN WITNESS WHEREOF, MCGRI and LICENSEE have caused this Agreement to be signed by their duly authorized representatives as of the day and year indicated below.

MEDICAL COLLEGE OF GEORGIA
RESEARCH INSTITUTE, INC.

LICENSEE:
NEWLINK GENETICS CORPORATION

By: /s/ Betty Aldridge

By: /s/ Nicholas Vahanian

Name: Betty Aldridge

Name: Nicholas Vahanian

Title: Executive Director

Title: Chief Medical and Operations Officer

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EXHIBIT A

LICENSED PATENTS

[*]

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EXHIBIT B

STOCK SUBSCRIPTION AGREEMENT

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STOCK SUBSCRIPTION AGREEMENT

This Stock Subscription Agreement (the "**Agreement**") is made as of the 13 day of September, 2005, by and between NewLink Genetics Corporation, a Delaware corporation (the "**Company**"), and Medical College of Georgia Research Institution, Inc., a nonprofit Georgia corporation ("**Purchaser**").

WITNESSETH:

WHEREAS, pursuant to the terms of the License Agreement, dated this date, between the Company and the Purchaser (the "**License Agreement**"), the Company has agreed to issue and sell to Purchaser, and Purchaser desires to acquire, [*] shares of Common Stock (the "**Common Stock**") of the Company.

NOW, THEREFORE, IT IS AGREED between the parties as follows:

1. **Purchase and Sale; Closing.**

(a) For and in consideration of the license granted pursuant to the License Agreement, Purchaser hereby agrees to Purchase from the Company and the Company agrees to issue and sell to Purchaser [*] shares of Common Stock (the "**Shares**").

(b) The Company delivers herewith to Purchaser a certificate registered in Purchaser's name representing the number of Shares purchased hereunder. Purchaser and the Company agree that the value of the Shares is [*].

2. **Representations and Warranties of the Purchaser.**

Purchaser hereby represents and warrants to the Company as follows:

(a) Purchaser is aware that the Shares to be issued to Purchaser by the Company pursuant to this Agreement have not been registered under the Securities Act of 1933, as amended (the “Act”), and that the Shares are deemed to constitute “restricted securities” under Rule 144 promulgated under the Act.

(b) Purchaser is obtaining the Shares for Purchaser’s own account and Purchaser has no present intention of distributing or selling said Shares except as permitted under the Act and applicable state securities laws. Purchaser does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person with respect to any of the Shares and Purchaser knows of no public solicitation or advertisement of any offer in connection with the Shares. Purchaser represents that Purchaser has full power and authority to enter into this Agreement.

(c) Purchaser is aware that the purchase of the Shares involves a high degree of risk. Purchaser acknowledges that Purchaser is able to fend for itself, can bear the economic risk of such investment, and has sufficient knowledge and experience in business and financial matters that Purchaser is capable of evaluating the Company, its proposed activities and the risks and merits of the investment in the Shares. Purchaser has the ability to accept the high risk and lack of liquidity inherent in this type of investment.

(d) Purchaser understands that the exemption from registration under Rule 144 will not be available for at least two years from the date of receipt of the Shares unless at

least one year from the date of receipt (i) a public trading market then exists for the Common Stock of the Company, (ii) adequate information concerning the Company is then available to the public, and (iii) other terms and conditions of Rule 144 are complied with; and that any sale of the Shares may be made only in limited amounts in accordance with such terms and conditions and that after ninety days after the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Shares may be resold by persons other than affiliates in reliance on Rule 144 without compliance with paragraphs (c), (d), (e) and (h) thereof, and by affiliates without compliance with paragraph (d) thereof.

(e) Purchaser is familiar with the Company, the nature of its business, its financial prospects and the merits and risks of an investment in the Company, and has the capacity to protect Purchaser’s own interests. Purchaser has been provided with the Company’s financial statements and executive summary and has had an opportunity to discuss the Company’s business, management and financial affairs with directors, officers and management of the Company. Purchaser has also had the opportunity to ask questions of, and receive answers from the Company and its management regarding the terms and conditions of this investment.

(g) Purchaser is an “accredited investor” as defined in Rule 501 under the Act.

3. Restrictive Legends.

All certificates representing the Shares shall have endorsed thereon the following legends:

(a) “THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THUS MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS REGISTERED UNDER APPLICABLE FEDERAL OR STATE SECURITIES LAWS, OR UNLESS THE COMPANY IS FURNISHED WITH AN OPINION OF COUNSEL ACCEPTABLE TO IT THAT AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.”

(b) “THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION.”

(c) Any legend required to be placed thereon by appropriate state Blue Sky officials.

4. Restrictions on Transfer.

(a) Without in any way limiting the foregoing, Purchaser further agrees that Purchaser shall in no event make any disposition of all or any portion of the Shares which Purchaser is being issued unless and until: (i) there is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with said registration statement; (ii) such disposition is made in accordance with the provisions of the Company’s Bylaws, (iii) Purchaser shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (iv) if reasonably requested by the Company, such Purchaser shall have furnished the Company with an opinion of counsel, reasonably satisfactory

to the Company, that such disposition will not require registration of such shares under the Act. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144 except in unusual circumstances.

(b) Purchaser hereby agrees that for a period of 180 days following the effective date of the first registration statement of the Company covering Common Stock (or other securities) to be sold on its behalf in an underwritten public offering, Purchaser shall not, to the extent requested by the Company and any underwriter, sell or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any Common Stock of the Company held by Purchaser at any time during such period except Common Stock included in such registration.

(c) In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Common Stock held by Purchaser (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

(d) The Company shall not be required (i) to transfer on its books any Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Bylaws or (ii) to treat as owner of such Shares or to accord the right to vote as such owner or to pay dividends to any transferee to whom such Shares shall have been so transferred.

5. **Miscellaneous.**

(a) The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

(b) Unless otherwise provided, any notice or other communications required or permitted under this Agreement shall be given in writing and shall be mailed by United States first class mail, postage prepaid, sent by facsimile or delivered personally by hand or by a nationally recognized courier addressed to the party to be notified at the address or facsimile number indicated for such person on the signature page hereof, or at such other address or such facsimile number as such party may designate by ten (10) days' advance written notice to the other parties hereto. All such notices and other written communications shall be effective on the date of mailing, confirmed facsimile transfer or delivery.

(c) This Agreement shall be governed by the laws of the State of Iowa and interpreted and determined in accordance with the laws of the State of Iowa, as such laws are applied by Iowa courts to contracts made and to be performed entirely in Iowa by residents of that state.

(d) This Agreement shall inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer herein set forth, shall be binding upon Purchaser, his or her heirs, executors, administrators, successors and assigns.

(e) This Agreement constitutes the full and entire understanding and agreement of the parties with respect to the subject matter hereof and no party shall be liable or bound to any other in any manner by any representations, warranties, covenants and agreements except as specifically set forth herein.

(f) The warranties, representations and covenants of the Purchaser contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

NewLink Genetics Corporation

By: /s/ Nicholas N. Vahanian
Title: Chief Medical & Operations Officer
Address: 2901 S. Loop Drive #3900
Ames, IA 50010
Facsimile No.: (515) 296-5557

Purchaser:

Medical College of Georgia Research Institution, Inc.

By: /s/ Betty Aldridge
Title: Executive Director, MCG Research Institute
Address: CA-2125, 1120 15th Street
Augusta, GA 30901
Facsimile No.: 706/721-2917

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

LICENSE AGREEMENT AMENDMENT

Inasmuch as NewLink Genetics Corporation of Ames, Iowa, and the Medical College of Georgia Research Institute of Augusta Georgia, have a valid and existing License Agreement related to the use of Indoleamine-2,3-Dioxygenase and its inhibitors in Immuno-regulation [*] dated September 13, 2005;

and

Inasmuch as the parties agree that the License Agreement contains a provision (Section 4.1) for the acquisition of new, related Improvement Technologies by NewLink arising at MCGRI after the Agreement was signed

and

Inasmuch as the NewLink has reviewed a new Improvement Technology [*], and wishes to exercise its option to incorporate this technology into the existing License Agreement technology portfolio under its standard royalty terms and use conditions,

It is Agreed:

That the parties amend the License Agreement relative to its Exhibit A , such that MCG case [*] is to be included in the technology portfolio for development and commercialization by NewLink, effective the date that the License Fee of [*] is received at MCGRI.

This present amendment shall hereby be considered part of the original License Agreement and is hereto agreed by representatives of both parties signing below.

MEDICAL COLLEGE OF GEORGIA RESEARCH INSTITUTE

NEWLINK GENETICS

By /s/Betty Aldridge
Name: Betty Aldridge
Title: Executive Director
Date: 4/27/06

By: /s/Nicholas N. Vahanian
Name: Nicholas N. Vahanian
Title: Chief Medical and Operations Officer
Date: 4/21/06



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LICENSE AGREEMENT AMENDMENT

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and

Inasmuch as the parties agree that the License Agreement contains a provision (Section 4.1) for the acquisition of new, related Improvement Technologies by NewLink arising at MCGRI after the Agreement was signed

and

Inasmuch as NewLink has reviewed a new Improvement Technology [*], and wishes to exercise its option to incorporate those technologies into the existing License Agreement technology portfolio under its standard royalty terms and use conditions,

It is Agreed:

That the parties amend the License Agreement relative to its Exhibit A , such that MCG case [*] is to be included in the technology portfolio for development and commercialization by NewLink, effective the date that the License Fee of [*] is received at MCGRI.

This present amendment shall hereby be considered part of the original License Agreement and is hereto agreed by representatives of both parties signing below.

MEDICAL COLLEGE OF GEORGIA RESEARCH INSTITUTE

NEWLINK GENETICS

By: /s/Betty Aldridge
Name: Betty Aldridge
Title: Executive Director
Date: 4/27/06

By: /s/Nicholas N. Vahanian
Name: Nicholas N. Vahanian
Title: Chief Medical and Operations Officer
Date: 4/21/06



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LICENSE AGREEMENT AMENDMENT

Inasmuch as NewLink Genetics Corporation of Ames, Iowa, and the Medical College of Georgia Research Institute of Augusta Georgia, have a valid and existing License Agreement related to the use of Indoleamine-2,3-Dioxygenase and its inhibitors in Immuno-regulation [*] dated September 13, 2005;

and

Inasmuch as the parties agree that the License Agreement contains a provision (Section 4.1) for the acquisition of new, related Improvement Technologies by NewLink arising at MCGRI after the Agreement was signed

and

Inasmuch as the NewLink has reviewed a new Improvement Technology [*], and wishes to exercise its option to incorporate this technology into the existing License Agreement technology portfolio under its standard royalty terms and use conditions,

It is Agreed:

That the parties amend the License Agreement relative to its Exhibit A , such that MCG case [*] is to be included in the technology portfolio for development and commercialization by NewLink, effective the date that the License Fee of [*] is received at MCGRI. All Payments due to the [*] will be coordinated by MCGRI according to the terms stated in [*].

This present amendment shall hereby be considered part of the original License Agreement and is hereto agreed by representatives of both parties signing below.

MEDICAL COLLEGE OF GEORGIA RESEARCH INSTITUTE

NEWLINK GENETICS

By: /s/Betty Aldridge
 Name: Betty Aldridge
 Title: Executive Director
 Date: 2/13/07

By: /s/Nicholas N. Vahanian
 Name: Nicholas N. Vahanian
 Title: Chief Medical and Operations Officer
 Date: 2/6/07

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Iowa State University Research Park Corporation

Suite 4050, 2711 South Loop Drive, Ames, Iowa 50010-8648
515-296-PARK FAX: 515-296-9924

Memorandum of Agreement

DATE: February 20, 2008

TO: Carl Langren
NewLink Genetics Corporation
2901 S. Loop Drive, Suite 3900
Ames, IA 50010

FROM: Steven T. Carter, President

RE: ADDENDUM TO THE LEASE BETWEEN ISU RESEARCH PARK CORPORATION AND NEWLINK GENETICS CORPORATION DATED FEBRUARY 1, 2001.

The following information constitutes additions to the Lease Agreement between ISU Research Park Corporation (Landlord) and NewLink Genetics Corporation (Tenant). Upon signatures of appropriate representatives of Landlord and Tenant affixed to this Memorandum, this Memorandum becomes a part of that Lease Agreement dated February 1, 2001.

Landlord agrees to extend the Lease Agreement for Suites 3350 (containing ±1,038 gsf), 3560 (containing ±701 gsf), and 3600 (containing ±1,325 gsf) and for Suite 3900 (containing ±3,147 gsf) in Building #3 at 2901 South Loop Drive, beginning March 1, 2008, in the following manner:

<u>Term</u>	<u>Sq. Ft. Base Rents</u>	<u>Sq. Ft. Operating Rents</u>	<u>Monthly Base Rents</u>	<u>Monthly Operating Rents</u>	<u>Annual Base Rents</u>	<u>Annual Operating Rents</u>
<i>Suites 3350, 3560 & 3600 (containing ±3,064 gsf)</i> 3/1/2008 - 6/30/2009	\$ 12.00	Actual	\$ 3,064.00	Actual	\$ 36,768.00	Actual
<i>Suite 3900 (containing ±3,147 gsf)</i> 3/1/2008 - 6/30/2009	\$ 12.75	Actual	\$ 3,343.69	Actual	\$ 40,124.28	Actual
<i>Suites 3540 & 3550 (containing ±1,439 gsf)</i> 1/1/2009 - 6/30/2009	\$ 12.50	Actual	\$ 1,498.96	Actual	\$ 17,987.52	Actual

Tenant leases the space as is. Any modifications will be at the Tenant's sole expense. Landlord agrees to release Tenant from this lease obligation upon Tenant's move into a larger facility at the ISU Research Park. Subject to the terms of this Memorandum, Tenant agrees that all terms and conditions of the February 1, 2001 Lease and those described in this Memorandum shall remain in force.

Please sign and return both originals to my office by February 25, 2008 if you concur with the above terms. We will then send a fully executed copy for your records.

AGREED

FOR
NewLink Genetics Corporation

FOR
ISU Research Park Corporation

/s/ Carl Langren

/s/ Steven T. Carter

Controller

President

Title

Title

2/21/08

2/21/08

Date

Date

QuickLinks

[Exhibit 10.50](#)

[Memorandum of Agreement](#)

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EXCLUSIVE LICENSE AGREEMENT

between

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

and

BIOPROTECTION SYSTEMS CORPORATION

for

“Recombinant Yellow Fever Virus as a Vaccine Vector” [*]

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EXCLUSIVE LICENSE AGREEMENT

for

“Recombinant Yellow Fever Virus as a Vaccine Vector” [*]

This license agreement (“Agreement”) is made effective this 29th day of July, 2008 (“Effective Date”), by and between The Regents of the University of California, a California corporation, having its statewide administrative offices at 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200 (“The Regents”), and acting through its Office of Technology Management, University of California San Francisco (“UCSF”), 185 Berry Street, Suite 4603, San Francisco, California 94107, and BioProtection Systems Corporation, a Delaware corporation, having a principal place of business at 2901 South Loop Drive, Suite 3360, Ames, Iowa 50010-8646 (“Licensee”).

BACKGROUND

- A. Certain inventions, generally characterized as “Recombinant Yellow Fever Virus as a Vaccine Vector” (collectively “Inventions”), were made in the course of research at the University of California, San Francisco, by Drs. Raul Andino and Andres McAllister Moreno and are claimed in Patent Rights as defined below.
- B. The development of the Inventions was sponsored by the Department of Health and Human Services and, as a consequence, this license is subject to overriding obligations to the United States Federal Government under 35 U.S.C. §§ 200-212 and applicable regulations, including a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced the Inventions for or on behalf of the United States Government throughout the world.
- C. Licensee wishes to obtain certain rights from The Regents for the commercial development of the Inventions, in accordance with the terms and conditions set forth herein and The Regents is willing to grant those rights so that the Inventions may be developed and the benefits enjoyed by the general public.
- D. The scope of such rights granted by The Regents is intended to extend to the scope of the patents and patent applications in Patent Rights, but only to the extent that The Regents has proprietary rights in and to the Valid Claims of such Patent Rights.
- E. Licensee is a “small business firm” as defined in 15 U.S.C. §632.
- F. Both parties recognize and agree that Earned Royalties are due under this Agreement with respect to specific products, services and methods covered by this Agreement and that such royalties will be paid with respect to both pending patent applications and issued patents, in accordance with the terms and conditions set forth herein.
- G. Both parties recognize and agree that Earned Royalties due under this Agreement will be based on Licensee’s or a Sublicensee’s last act covered by the Patent Rights within the control of Licensee or a Sublicensee, regardless of whether Licensee or a Sublicensee

The parties agree as follows:

1 DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, shall have the following meanings:

- 1.1 “**API**” or “**Active Pharmaceutical Ingredient**” means a therapeutically active biological or chemical compound that (i) requires regulatory approval by the United States Food and Drug Administration (“FDA”) before use in humans; (ii) does not function together with the Licensed Product to achieve the same prophylactic or therapeutic purpose through the same mechanism of action, by targeting the same antigen or the same gene or expressed product of a gene; (iii) is claimed or covered by patent rights that do not claim or cover Licensed Product; and (iv) when Sold as a component of a Combination Product, the market price of such Combination Product is higher than the market price for the Licensed Product portion included within such Combination Product, when such Licensed Product is Sold alone. For clarity, the term “Active Pharmaceutical Ingredient” shall not include excipients, buffers or other similar substances that are typically formulated with the therapeutically active ingredient contained in a drug product to form the final drug product for sale and/or pharmaceutical administration.
- 1.2 “**Affiliate**” of Licensee means any entity which, directly or indirectly, Controls Licensee, is Controlled by Licensee or is under common Control with Licensee. “Control” means: (i) having the actual, present capacity to elect a majority of the directors of such entity; (ii) having the power to direct at least forty percent (40%) of the voting rights entitled to elect directors; or (iii) in any country where the local law will not permit foreign equity participation of a majority, ownership or control, directly or indirectly, of the maximum percentage of such outstanding stock or voting rights permitted by local law.
- 1.3 “**Attributed Income**” means the total gross proceeds (exclusive of Earned Royalties of Sublicensees, but including, without limitation, any license fees, maintenance fees, or milestone payments), whether consisting of cash or any other forms of consideration and whether any rights other than Patent Rights are granted, which gross proceeds are received by or payable to Licensee or any Affiliate from any Sublicensee in consideration of the grant of a sublicense under the Patent Rights. Notwithstanding the foregoing, Attributed Income shall not include proceeds attributed in such sublicense or such agreement, arrangement or other relationship to bona fide: [*] for the applicable Sublicensee under such sublicense or such agreement, arrangement or other relationship on the basis of full-time equivalent (“FTE”) efforts of personnel at or below commercially reasonable and standard FTE rates and/or reimbursement of other research costs (such as capital equipment purchase) on any actual cost basis.

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For the avoidance of doubt, any gross proceeds meeting the definition set forth above in this Article 1.2 shall be “Attributed Income” irrespective of whether such gross proceeds are received under one or more separate agreements relating to sublicensing of the Patent Rights and irrespective of how such gross proceeds are referred to or characterized by Licensee, or the Sublicensee.

- 1.4 “**Combination Product**” means a therapeutic Product that when Sold contains as active ingredients both a Licensed Product and one or more Active Pharmaceutical Ingredients (which are not themselves Licensed Products). For clarity, the entire Combination Product is deemed a Licensed Product.
- 1.5 “**Commercially Reasonable Efforts**” shall mean, with respect to the efforts and resources to be expended by Licensee (or its Affiliates or any Sublicensees) with respect to any objective under this Agreement, reasonable, diligent, good faith efforts to accomplish such objective as such party would normally use to accomplish a similar objective under similar circumstances, it being understood and agreed that with respect to the discovery, development or commercialization of any Product, such efforts shall be substantially equivalent to those efforts and resources commonly used by such party for a product owned by it or to which it has exclusive rights, which product is at a similar stage in its development or product life and is of similar market potential taking into account efficacy, safety, approved labeling, the competitiveness of alternative products in the marketplace, the patent and other proprietary position of the product, the likelihood of regulatory approval, the profitability and commercial potential of the product to the applicable party, alternative products and other relevant factors.
- 1.6 “**Earned Royalty**” means a royalty as defined in Paragraph 9.1.
- 1.7 “**Field of Use**” means all uses, applications and indications relating to human health, such as diagnostic, prophylactic and therapeutic applications, including without limitation Licensee’s and any Sublicensee’s internal research and development use as required to develop such applications and all commercial uses relating to human healthcare. All other uses are excluded.
- 1.8 “**FTE**” is defined in Paragraph 1.2 (Attributed Income).
- 1.9 “**Joint Venture**” means any separate entity established pursuant to an agreement between a third party and Licensee and/or Sublicensee to constitute a vehicle for a joint venture, in which the separate entity manufactures, uses, purchases, Sells or acquires Licensed Products from Licensee or Sublicensee.
- 1.10 “**Know-How**” means the Biological Materials, protocols and other unpatented know-how listed or generally described in Appendix A.
- 1.11 “**Licensed Method**” means any process, art or method the use or practice of which, but for the license granted in this Agreement, would infringe, or contribute to, or induce the infringement of, any Patent Rights in any country were they issued at the time of the infringing activity in that country.

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- 1.12 “**Licensed Product(s)**” means any Product, (which may include, without limitation, a Product for use or used in practicing a Licensed Method and any Product made by practicing a Licensed Method), the manufacture, use, Sale, offer for Sale or import of which, but for the license granted in this Agreement, would infringe, or contribute to, or induce the infringement of, any Patent Rights in any country were they issued at the time of the

infringing activity in that country. For the avoidance of doubt, if such Product is a component of a larger unit such as a kit, composition of matter or combination, then such kit, composition of matter or combination is deemed to be the Licensed Product for purposes of this definition.

- 1.13** “**Net Invoice Price**” means the gross invoice price charged by, and the value of any other consideration (if any) owed to, Licensee and/or any Sublicensee for a Licensed Product Sold to a third party, less (i) an allowance only for those accounts deemed uncollectible by Licensee (or the Sublicensee, as applicable) after diligent efforts to collect the amount owed, and (ii) the following items, but only to the extent that they actually pertain to the disposition of such Licensed Product, and are included in the gross invoice price charged or other consideration owed:
- 1.13.1** Allowances or credits or refunds actually granted to customers for rejections, returns and prompt payment and volume or trade discounts off of the gross invoice price;
 - 1.13.2** Freight, transport packing and insurance charges associated with transportation, to the extent identified separately on a bill or invoice;
 - 1.13.3** Taxes, including Deductible Value Added Tax, tariffs or import/export duties based on Sales when included in the gross invoice price, but excluding value-added taxes other than Deductible Value Added Tax or taxes assessed on income derived from Sales. “Deductible Value Added Tax” means only the portion of the value added tax that is actually incurred and is not reimbursable, refundable or creditable under the tax authority of any country;
 - 1.13.4** normal and customary discounts and rebates given off of the gross invoice price as a part of a formulary or similar program that are allowed, paid or credited to customers, third-party payers, healthcare systems, or administrators for a Licensed Product that is included in such program, as permitted by applicable law;
 - 1.13.5** normal and customary chargebacks and retroactive price reductions that are paid or credited to customers, third-party payers, health care systems, or administrators for a Licensed Product, as permitted by applicable law;
 - 1.13.6** Rebates and discounts off of the gross invoice price paid or credited pursuant to applicable law; and
 - 1.13.7** The invoiced, out-of-pocket cost (or cost of manufacture, if manufactured by Licensee, its Affiliate(s) or any Sublicensees) for drug delivery devices or

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vaccine delivery devices specifically for use with and included in the Licensed Product.

- 1.14** “**Net Sale**” means:
- 1.14.1** except in the instances described in Paragraphs 1.14.2, 1.14.3 and 1.14.4 of this Paragraph, the Net Invoice Price;
 - 1.14.2** for any Relationship-Influenced Sale of a Licensed Product, Net Sales shall be based on the Net Invoice Price at which the Relationship-Influenced Sale Purchaser re-Sells such Licensed Product;
 - 1.14.3** in those instances where Licensed Product is not Sold, but is otherwise commercially exploited, the Net Sales for such Licensed Product shall be the Net Invoice Price of products of the same or similar kind and quality, Sold in similar quantities, currently being offered for Sale by Licensee, and/or any Sublicensee. Where such products are not currently being offered for Sale by Licensee, and/or any any Sublicensee, the Net Sales for Licensed Product otherwise exploited, for the purpose of computing royalties, shall be the average Net Invoice Price at which products of the same or similar kind and quality, Sold in similar quantities, are then currently being offered for Sale by other manufacturers. Where such products are not currently Sold or offered for Sale by Licensee, and/or any Sublicensee, or others, then the Net Sales shall be Licensee’s, and/ or any Sublicensee’s cost of manufacture of Licensed Product, determined according to Generally Accepted Accounting Principles (“GAAP”), [*]; and
 - 1.14.4** for a Reacquisition Sale or Exploitation, Net Sales shall mean the Net Invoice Price upon the Reacquisition Sale or Exploitation of a Licensed Product.
 - 1.14.5** For a Combination Product, Net Sales for royalty purposes shall be calculated as:
$$A/(A+B) \times [\text{Net Sales, calculated as in 1.14.1-1.14.4 above, without regard to this formula}], \text{ where:}$$
 - (i) “A” is the total of Net Sales of each Licensed Product contained within or used in the Combination Product when Sold separately; and
 - (ii) “B” is the total of net sales of each API contained within or used in the Combination Product when Sold separately;provided, however, that in no event shall Net Sales for royalty purposes of a Combination Product be less than [*] of the Net Sales calculated as above without regard to this formula.

In the event that either the Licensed Product or any of the APIs included in the Combination Product are not Sold separately, the Net Sales shall be calculated as: $(C/D) \times [\text{Net Sales, calculated as in 1.14.1-1.14.4 above, without regard to this formula}]$, where:

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-
- (i) “C” is the relative contribution, to the overall market value of such Combination Product, of the Licensed Product portion included in the Combination Product; and

(ii) “D” is relative contribution, to the overall market value of such Combination Product, of the API portion(s) included in the Combination Product; with C and D to be established by the mutual agreement of the Parties acting reasonably and in good faith based upon the then-current market conditions; and

provided, however, that in no event shall Net Sales for a Combination Product be less than [*] of the Net Sales calculated without regard to this formula.

1.15 “**New Developments**” means inventions, or claims to inventions, which constitute advancements, developments or improvements, whether or not patentable and whether or not the subject of any patent application, which are not sufficiently supported by the specification of a previously-filed patent or patent application within the Patent Rights to be entitled to the priority date of the previously-filed patent or patent application.

1.16 “**Patent Prosecution Costs**” is defined in Paragraph 12.4.

1.17 “**Patent Rights**” means to the extent assigned to or otherwise obtained by The Regents, the following United States patents and patent applications and all rights thereunder:

UC Case Number	United States Application Number or United States Patent Number	Filing or Issue Date
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

The term “Patent Rights” shall also mean, to the extent assigned to or otherwise obtained by The Regents, any reissues, extensions, substitutions, continuations, divisions, and continuation-in-part applications (but excluding those Valid Claims in the continuation-in-part applications that are not supported in the specification of and not entitled to the priority date of the parent application). This definition of Patent Rights excludes any rights in and to New Developments.

1.18 “**Product**” means any kit, article of manufacture, composition of matter, material, compound, component or product.

1.19 “**Reacquisition Sale or Exploitation**” means those instances where Licensee, or a Sublicensee, acquires a Licensed Product and then subsequently Sells or otherwise commercially exploits such Licensed Product.

1.20 “**Related Party**” means a corporation, firm or other entity with which, or individual with whom, Licensee, and/or any Sublicensee (or any of its respective stockholders, subsidiaries or Affiliates) have any agreement, understanding or arrangement (for example, but not by way of limitation, an option to purchase stock or other equity

interest, or an arrangement involving a division of revenue, profits, discounts, rebates or allowances) unrelated to the Sale or exploitation of the Licensed Products and due to such other agreement, understanding or arrangement, the amounts, if any, charged by Licensee, or any Sublicensee to such entity or individual for the Licensed Product, is less than Licensee or Sublicensee (as applicable) otherwise would have charged for such Licensed Product.

1.21 “**Relationship-Influenced Sale**” means a Sale of a Licensed Product, or any other commercial exploitation of the Licensed Product or Licensed Method, between Licensee and/or any Sublicensee and (i) an Affiliate; (ii) a Joint Venture; (iii) a Related Party or (iv) Licensee or a Sublicensee.

1.22 “**Relationship-Influenced Sale Purchaser**” means the purchaser of Licensed Product in a Relationship-Influenced Sale.

1.23 “**Sale**” means the act of selling, leasing or otherwise commercially transferring, providing, or furnishing for use for any consideration. Correspondingly, “**Sell**” means to make or cause to be made a Sale and “**Sold**” means to have made or caused to be made a Sale.

1.24 “**Sublicensee**” means any person or entity (including any Affiliate or Joint Venture) to which any of the license rights granted to Licensee hereunder are sublicensed.

1.25 “**Sublicense Fee**” is defined in Paragraph 8.1.

1.26 “**Valid Claim**” means a claim of a patent or patent application in any country that (i) has not expired; (ii) has not been disclaimed; (iii) has not been cancelled or superseded, or if cancelled or superseded, has been reinstated; and (iv) has not been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country from which no further appeal has or may be taken.

2 GRANT

2.1 Subject to the limitations and other terms and conditions set forth in this Agreement including the license granted to the United States Government set forth in the Background and in Paragraph 2.4.1, The Regents grants to Licensee a license under its rights in and to Patent Rights to make, use, Sell, offer for Sale and import Licensed Products and to use and practice the Patent Rights and Licensed Methods, in the United States and in other countries where The Regents may lawfully grant such licenses, only in the Field of Use.

2.2 Except as otherwise provided for in this Agreement, the license granted under Patent Rights in Paragraph 2.1 is exclusive,

2.3 Subject to the limitations and other terms and conditions set forth in this Agreement including the license granted to the United States Government set forth in the Background and in Paragraph 2.4.1, The Regents grants to Licensee a non-exclusive

license under its rights in and to Know-How to use solely for the research, development and commercialization of Licensed Products only in the Field of Use.

2.4 The license granted in Paragraphs 2.1 and 2.2 is subject to the following:

2.4.1 The obligations to the United States Government under 35 U.S.C. §§ 200-212 and all applicable governmental implementing regulations, as amended from time to time, including the obligation to report on the utilization of the Inventions as set forth in 37 CFR. § 401.14(h), and all applicable provisions of any license to the United States Government executed by The Regents; and

2.4.2 the National Institutes of Health “Principles and Guidelines for Recipients of NIH Research Grants and Contracts on Obtaining and Disseminating Biomedical Research Resources,” 64 F.R. 72090 (Dec. 23, 1999), as amended from time to time.

2.5 The license granted in Paragraphs 2.1, 2.2 and 2.3 is limited to activities, methods and products that are within the Field of Use. For other activities, methods and products outside the Field of Use, Licensee has no license under this Agreement.

2.6 The Regents reserves and retains the right (and the rights granted to Licensee in this Agreement shall be limited accordingly) to make, use and practice the Inventions, and any technology relating to the Inventions and to make and use any Products and to practice any process that is the subject of the Patent Rights (and to grant any of the foregoing rights to other educational and non-profit institutions) for educational and research purposes, including without limitation, any sponsored research performed for or on behalf of commercial entities and including publication and other communication of any research results. For the avoidance of doubt, to the extent the Inventions and any technology relating to it are not the subject of the exclusive license under the Patent Rights granted to the Licensee hereunder, The Regents shall be free to make, use, Sell, offer to Sell, import, practice and otherwise commercialize and exploit (including to transfer, license to, or have exercised by, third parties) for any purpose whatsoever and in its sole discretion, such Inventions, and any Products or processes that are the subject of any of the foregoing.

2.7 Because the Inventions were made under funding provided by the United States Government, Licensed Products, the Inventions, and any products embodying the Inventions sold in the United States will be substantially manufactured in the United States to the extent required by law or regulation. The Regents agree to use reasonable efforts to seek an exemption from the foregoing requirement, if requested by Licensee, based upon reasonable reasons justifying such exemption.

2.8 Promptly after the Effective Date, The Regents will disclose or provide, as appropriate, to Licensee the Know-How in Appendix. A (to the extent not otherwise disclosed within the Patent Rights disclosed to Licensee).

3 SUBLICENSES

3.1 The Regents also grants to Licensee the right to sublicense to third parties (including to Affiliates and Joint Ventures) the rights granted to Licensee hereunder, with no right to further sublicense except as provided below, as long as Licensee has current exclusive rights under this Agreement. Each Sublicensee must be subject to a written sublicense agreement. All sublicenses will be subject to all terms and conditions of this Agreement, will include all of the rights of, and will require the performance of all the obligations due to, The Regents (and, if applicable, the United States Government and other sponsors) to the extent that such obligations are not performed by Licensee, other than those rights and obligations specified in Article 6 (License Issue Fee), Article 7 (License Maintenance Fee) and Paragraph 9.3 (Minimum Annual Royalty) and Paragraphs 21.4 and 21.5 (reimbursement for Patent Prosecution Costs). For the avoidance of doubt, Licensee shall have no right to permit any Sublicensee and no Sublicensee shall have any right to further sublicense any of the rights granted to Licensee hereunder without the prior written consent of The Regents, such consent not to be unreasonably withheld or delayed, except that each Sublicensee (except Affiliates and Joint Ventures) may sublicense to its Affiliates (as affiliate is defined in Paragraph 1.1 with Sublicensee substituted for Licensee in the definition), to the extent needed for the development and commercialization of Licensed Products in accordance with this Agreement. Also, for the avoidance of doubt, Affiliates and Joint Ventures shall have no licenses under this Agreement unless such Affiliates and Joint Ventures are granted a sublicense. For the purposes of this Agreement, any act or omission by a Sublicensee that would be a breach of this Agreement if imputed to Licensee will be deemed to be a breach by Licensee of this Agreement.

3.2 Licensee will notify The Regents of each sublicense granted hereunder and will provide The Regents with a complete copy of each sublicense (along with a summary of the material terms of each such sublicense) and each amendment to such sublicense within thirty (30) days of issuance of such sublicense or such amendment. Licensee will use reasonable efforts to collect from Sublicensees all fees, payments, royalties and the cash equivalent of any consideration due under the applicable sublicense agreements and will pay to The Regents all amounts due The Regents under this Agreement based on all Sublicensee’s activities. For clarity, even if Licensee grants a sublicense that contains a provision for payment to Licensee (or its Affiliate) of royalties by any Sublicensee in an amount that is less than the Earned Royalty required to be paid under Paragraph 9.1 below based on the sales of Licensed Product by such Sublicensee, Licensee will pay to The Regents a total amount equal to the Earned Royalty based on the Sublicensees’ Net Sales as provided for in Paragraph 9.1. Licensee will require Sublicensees to provide it with copies of all progress reports and royalty reports in accordance with the provisions herein and Licensee will collect and deliver all such reports due The Regents from Sublicensees.

3.3 If Licensee licenses to a third party patent rights assigned to or otherwise acquired by Licensee (“Licensee’s Patent Rights”), and it believes, in good faith, that the recipient of such license will infringe Patent Rights in practicing Licensee’s Patent Rights, then Licensee will not separately grant a license to such recipient under Licensee’s Patent Rights without concurrently granting a sublicense under Patent Rights consistent with Section 3.1 under this Agreement.

3.4 Upon any expiration or termination of this Agreement for any reason, all sublicenses shall automatically terminate, unless The Regents, at its sole discretion, agrees in writing to an assignment to The Regents of any sublicense. In the event of termination of this Agreement and if The Regents accepts assignment of any sublicense, The Regents will not be bound by any grant of rights broader than or will not be required to perform any obligation other than those rights and obligations contained in this Agreement. Moreover, if The Regents accepts assignment of a sublicense in such case, The Regents will have the sole right to modify each such assigned sublicense to include all of the rights of The Regents (and, if applicable, the United States Government and other sponsors) that are contained in this Agreement, including the payment of Earned Royalties directly to The Regents by the Sublicensee as if it were Licensee at a rate that is no lower than the rate set forth in Article 9 (Earned Royalties and Minimum Annual Royalties) in accordance with Article 5 (Payment Terms).

4 MANDATORY SUBLICENSING

4.1 If The Regents (as represented by the actual knowledge of the licensing professional responsible for administration of this Agreement) becomes aware of, or if a third party becomes aware of and notifies such licensing professional of an application or use for Licensed Products within the licensed Field of Use but for which Licensed Products have not been developed or are not, at such time, being developed by Licensee, then The Regents, through the Office of Technology Management, may give written notice to Licensee thereof.

4.2 Within ninety (90) days of such notice, Licensee shall give The Regents written notice stating whether Licensee (or its Affiliate or Sublicensee) agrees to develop and commercialize Licensed Products for such application ("New Licensed Products"). Such notice shall be accompanied by (i) a reasonably detailed development schedule, including specific diligence requirements and development milestones, for the development of New Licensed Products; and (ii) a reasonably detailed business plan for the development, marketing and commercialization of New Licensed Products (collectively, the "Development Plan"). If Licensee has not notified The Regents, in accordance with the foregoing, that Licensee (or its Affiliate or Sublicensee) agrees to develop and commercialize such New Licensed Products within such ninety (90) day period, or if the Development Plan is not reasonably acceptable to The Regents, then Licensee shall be deemed to not so agree.

4.3 If Licensee has notified The Regents, as set forth in Paragraph 4.2, that it (or its Affiliate or Sublicensee) intends to develop and commercialize such New Licensed Products, then Licensee (or its Affiliate or Sublicensee) shall (i) diligently proceed with the development, manufacture and commercialization of such New Licensed Products in accordance with the Development Plan and (if required regulatory approvals are obtained) earnestly and diligently endeavor to market the same in accordance with the Development Plan and in quantities sufficient to meet market demand; and (ii) Licensee shall submit a written progress report setting forth in detail the status of such development, manufacture and commercialization every six (6) months to The Regents.

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4.4 If Licensee does not agree, as set forth in Paragraph 4.2, to develop and commercialize such New Licensed Products, or if Licensee (or its Affiliate or Sublicensee, as applicable) materially fails to diligently pursue the development and commercialization thereof in accordance with the Development Plan and such failure is not cured within 90 days of written notice of such failure, then The Regents shall have the right to seek one or more third parties for the development and commercialization of such New Licensed Products and refer such third party to Licensee so that such third party may request a sublicense allowing for development and commercialization of such New Licensed Products, provided however that Licensee shall not in any event be required to grant to any such third party a sublicense with respect to any Licensed Product then in development or being commercialized by Licensee (or its Affiliate or Sublicensee) for other uses or indications within the licensed Field of Use. If the third party requests a sublicense, then Licensee shall report such request, together with the terms and conditions thereof proposed by such third party, to The Regents within thirty (30) days from the date of such request, and Licensee shall negotiate with such third party reasonably and in good faith and seek to reach agreement on the terms of such a sublicense, which shall be commercially reasonable for Licensee.

4.5 If such a third party has requested a sublicense with respect to New Licensed Products and has proposed commercially reasonable terms, and Licensee does not grant a sublicense to the third party within a reasonable time after such request under commercially reasonable terms, then Licensee shall promptly, or, in the event of such refusal, within thirty (30) days after such refusal, submit to The Regents a written report specifying the license terms proposed by the third party and a written justification for the Licensee's refusal or failure to grant such sublicense. If The Regents, acting reasonably and in good faith, determines that the terms of the sublicense proposed by the third party are commercially reasonable under the circumstances, then The Regents shall have the right to grant to the third party (and the rights granted to Licensee in this Agreement shall be limited accordingly) a license to make, have made, use, sell, offer for sale and import the requested New Licensed Products and to practice the Licensed Methods (within the licensed Field of Use and otherwise) with respect to the specific application covered by the request, at substantially the same terms last proposed to Licensee by the third party providing that the royalty rates are not lower than the earned royalties owed by Licensee hereunder and provided further that The Regents may not in any event grant such third party any license rights with respect to any Licensed Product then in development or being commercialized by Licensee (or its Affiliate or Sublicensee) or with respect to any uses or indications within the licensed Field of Use other than the specific use requested by such third party that is the New Licensed Product.

5 PAYMENT TERMS

5.1 Paragraphs 1.11, 1.12 and 1.17 define Licensed Method, Licensed Product, and Patent Rights, so that Earned Royalties are payable on products and methods covered by Valid Claims in the Patent Rights (which includes both pending patent applications and issued patents). Earned Royalties will accrue for the duration of Patent Rights and will accrue when Licensed Products are invoiced, or if not invoiced, when delivered or otherwise exploited by Licensee or Sublicensee in a manner constituting a Net Sale as defined in

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Paragraph 1.14. Sublicense Fees with respect to any Attributed Income shall accrue to The Regents within thirty (30) days of the date that such Attributed Income is received by Licensee. Licensee shall use diligent efforts to collect from its Sublicensees all Attributed Income that is due to

Licensee, and if a Sublicensee materially defaults in an obligation to pay Attributed Income, and does not cure such default within ninety (90) days of the date such Attributed Income is due, then Licensee shall terminate the corresponding sublicense.

- 5.2 Licensee will pay to The Regents all Earned Royalties, Sublicense Fees and other consideration payable to The Regents quarterly on or before February 28 (for the calendar quarter ending December 31), May 31 (for the calendar quarter ending March 31), August 31 (for the calendar quarter ending June 30) and November 30 (for the calendar quarter ending September 30) of each calendar year. Each such payment will be for Earned Royalties, Sublicense Fees and other consideration which has accrued within Licensee's most recently completed calendar quarter.
- 5.3 All consideration due The Regents will be payable and made in United States dollars by check payable to "The Regents of the University of California" or by wire transfer to an account designated by The Regents. Licensee is responsible for all bank or other transfer charges. When Licensed Products are Sold for monies other than United States dollars, the Earned Royalties and other consideration will first be determined in the foreign currency of the country in which such Licensed Products were Sold and then converted into equivalent United States dollars. The exchange rate will be the average exchange rate quoted in the *The Wall Street Journal* during the last thirty (30) days of the reporting period.
- 5.4 Sublicense Fees and Earned Royalties on Net Sales of Licensed Products and other consideration accrued in, any country outside the United States may not be reduced by any taxes, fees or other charges imposed by the government of such country, except those taxes, fees and charges allowed under the provisions of Paragraphs 1.13 (Net Invoice Price) and 1.14 (Net Sale) or for withholding taxes required to be assessed by any government upon the payments being made to The Regents.
- 5.5 Notwithstanding the provisions of Article 28 (Force Majeure) if at any time legal restrictions prevent the prompt remittance of Earned Royalties or other consideration owed to The Regents by Licensee with respect to any country where a sublicense is issued or a Licensed Product is Sold or otherwise exploited, then Licensee shall convert the amount owed to The Regents into United States dollars and will pay The Regents directly from another source of funds in order to remit the entire amount owed to The Regents.
- 5.6 In the event that any patent or claim thereof included within the Patent Rights is held invalid in a final decision by a court of competent jurisdiction and last resort and from which no further appeal can be taken, then all obligation to pay royalties based on that patent or claim or any claim patentably indistinct therefrom will cease as of the date of final decision. Licensee will not, however, be relieved from paying any royalties that accrued before such final decision and Licensee shall be obligated to pay the full amount

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of royalties due hereunder to the extent that The Regents licenses one or more Valid Claims within the Patent Rights to Licensee that cover such Licensed Products.

- 5.7 To the extent required by law, no Earned Royalties will be collected or paid hereunder to The Regents on Licensed Products Sold to, or otherwise exploited for, the account of the United States Government as provided for in the license to the United States Government. Licensee, and its Sublicensees will reduce the amount charged for Licensed Products Sold to, or otherwise exploited by, the United States Government by an amount equal to the Earned Royalty for such Licensed Products otherwise due The Regents. Such reduction in Earned Royalties will be in addition to any other reductions in price required by the United States Government.
- 5.8 In the event that royalties, fees, reimbursements for Patent Prosecution Costs or other monies owed to The Regents under this Agreement are not received by The Regents when due, Licensee will pay to The Regents interest on the amount of the late payment at a rate of ten percent (10%) simple interest per annum. Such interest will be calculated from the date payment was due until actually received by The Regents. Such accrual of interest will be in addition to and not in lieu of, enforcement of any other rights of The Regents due to such late payment.

6 LICENSE ISSUE FEE

Licensee will pay to The Regents a license issue fee of [*] within seven (7) days of the Effective Date. This fee is non-refundable, non-cancelable and is not an advance or otherwise creditable against any royalties or other payments required to be paid under the terms of this Agreement.

7 LICENSE MAINTENANCE FEE

- 7.1 Beginning on the one-year anniversary of the Effective Date and continuing annually on each anniversary of the Effective Date (except as otherwise provided in Section 7.2), Licensee will also pay to The Regents a license maintenance fee as follows:
- 7.1.1 [*] until and including the [*];
- 7.1.2 [*] subsequent to the [*].
- 7.2 The license maintenance fee is not due on any anniversary of the Effective Date if on that date, Licensee (or its Affiliate or Sublicensee) is Selling or otherwise exploiting Licensed Products and is paying an Earned Royalty to The Regents on the Net Sales of such Licensed Products. The license maintenance fee is non-refundable and is not an advance or otherwise creditable against any royalties or other payments required to be paid under the terms of this Agreement.

8 PAYMENTS ON SUBLICENSES

- 8.1 Licensee will pay to The Regents the following percentages of all Attributed Income ("Sublicense Fees"), according to the stage of development of Licensed Products:

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- 8.1.1 [*] under sublicenses executed before [*];

8.1.2 [*] under sublicenses executed subsequent to [*] but prior to [*];

8.1.3 [*] under sublicenses executed subsequent to [*] but prior to [*];

8.1.4 [*] under sublicenses executed after [*].

Sublicense Fees are non-refundable and non-creditable.

9 EARNED ROYALTIES AND MINIMUM ANNUAL ROYALTIES

9.1 Licensee will pay to The Regents an “**Earned Royalty**” of:

9.1.2 [*] of the Net Sales of Licensed Product(s) or Licensed Method [*] by Licensee or any Affiliate or Sublicensee; and

9.1.3 [*] of the Net Sales of Licensed Product(s) or Licensed Method [*] by Licensee or any Affiliate or Sublicensee.

9.2 In the event it becomes necessary for Licensee (or its Affiliate or Sublicensee) to license patent rights owned by an unaffiliated third party in order to make, use, Sell, offer to Sell or import Licensed Product or Licensed Method, and Licensee (or its Affiliate or Sublicensee) is required to pay a royalty to the unaffiliated third party under a separate license agreement in order to practice Licensed Methods, and/or to make, use, Sell, offer to Sell or import Licensed Products, in addition to Licensee paying to The Regents a royalty under this Agreement for such activity, and the combined earned royalty due all the parties exceeds [*], then the Earned Royalty to be paid to The Regents under this Agreement by Licensee shall be reduced on a going-forward basis by an amount equal to [*] of the royalty rate due to such unaffiliated third party that is in excess of the [*] combined royalty rate due to all parties. However, in no event shall the amount paid to The Regents be reduced below [*] of the original Earned Royalty amount due The Regents under Paragraph 9.1 above. No reduction pursuant to this Section 9.2 will be available with respect to a Combination Product if no such royalty would have been payable to such unaffiliated third party if the relevant API were not included in such Combination Product.

9.3 In the event it becomes necessary for the Licensee or its Affiliate or a Sublicensee to license patent rights owned by an unaffiliated third party in order to make, use, Sell, offer to Sell or import the Licensed Product component of a Combination Product, and Licensee is required to pay a royalty to both The Regents under this Agreement and the unaffiliated third party under that separate license agreement in order to practice Licensed Methods, and to make, use, Sell, offer to Sell or import Licensed Products, and the combined earned royalty due all the parties exceeds [*], and the Net Sales amount has been allocated to the Licensed Product portion of the Combination Product pursuant to Subparagraph 1.14.5, then the Earned Royalty to be paid to The Regents under this Agreement by Licensee shall be reduced by an amount equal to [*] of the combined earned royalty rate due to The Regents and the unaffiliated third party. However, in no

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event shall the amount paid to The Regents be reduced below [*] of the original Earned Royalty amount due The Regents on Net Sales of the Combination Product calculated without regard to Subparagraph 1.14.5 and without regard to this Paragraph 9.3.

9.4 Licensee will also pay to The Regents a minimum annual royalty of [*] for the life of Patent Rights, beginning with the year of the first Sale of Licensed Product, but no later than calendar year 2015. The minimum annual royalty will be paid to The Regents by February 28 of each year and will be credited against the Earned Royalty due for the calendar year in which the minimum payment was made. However, if the year of the first Sale is earlier than calendar year 2015, then Licensee’s obligation to pay the minimum annual royalty will be pro-rated for the number of months remaining in that calendar year when Sales commence and will be due the following February 28 (along with the minimum annual royalty payment for that year), to allow for crediting of the pro-rated year’s Earned Royalties.

10 MILESTONE PAYMENTS

10.1 With respect to each Licensed Product, Licensee will pay to The Regents the following non-refundable, non-creditable amounts:

10.1.1 [*] upon the first [*];

10.1.2 [*] upon first [*];

10.1.3 [*] upon first [*];

10.1.4 [*] upon the first [*];

10.1.5 [*] upon first [*]; *provided that* such payment shall be [*] upon [*] for each [*].

10.2 For the avoidance of doubt, each of the milestone payments set forth in Section 10.1 above will be payable with respect to each different Licensed Product, but shall be payable only once with respect to such Licensed Product. Furthermore, each such milestone payment will be payable regardless of whether the applicable milestone event has been achieved by Licensee or any Affiliate, Joint Venture, or Sublicensee.

10.3 All milestone payments are due to The Regents within thirty (30) days of the occurrence of the applicable milestone event.

11 DUE DILIGENCE

11.1 Licensee, upon execution of this Agreement, will diligently proceed with the development, manufacture and (if required regulatory approvals are obtained) Sale of Licensed Products and will earnestly and diligently market the same after execution of this Agreement and in quantities sufficient to meet the market demands therefor, all using Commercially Reasonable Efforts.

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- 11.2 Licensee will use Commercially Reasonable Efforts to obtain all necessary governmental approvals in each country where Licensed Products are intended to be manufactured, used, Sold, offered for Sale or imported; Licensee shall not make any Sale of a Licensed Product in a country without obtaining all necessary governmental approvals for the Sale in such country.
- 11.3 Licensee will:
- 11.3.1 [*] from the Effective Date;
 - 11.3.2 [*] within [*] from the Effective Date;
 - 11.3.3 [*] within [*] from the Effective Date;
 - 11.3.4 [*] within [*] of [*]; and
 - 11.3.5 [*] for Licensed Products [*] at any time during the exclusive period of this Agreement.
- 11.4 If Licensee does not perform any of the above milestone events under Subparagraphs 11.3.1 through 11.3.4 within the specified time, and Licensee can demonstrate with supporting documentation its Commercially Reasonable efforts to meet such milestones, then The Regents agrees to extend such milestone for one (1) year upon payment of an extension fee of [*]. Additional one (1) year extensions are available for any milestone provided that Licensee can continue to demonstrate its Commercially Reasonable efforts with supporting documentation and pays an additional extension fee of [*].
- 11.5 If Licensee does not perform any of the above provisions in Section 11.3 within the specified time, and cannot demonstrate its Commercially Reasonable efforts to achieve such milestone (based on The Regents' objective, good faith assessment of Licensee's demonstration and supporting documentation), and *provided that* such failure is not due to matters outside of Licensee's control, then The Regents has the right and option to either terminate this Agreement or reduce the exclusive license granted to Licensee to a nonexclusive license subject to and in accordance with Paragraph 11.7 below. This right, if exercised by The Regents, supersedes the rights granted in Article 2 (Grant).
- 11.6 In addition to the obligations set forth above, Licensee shall [*] Licensed Products during the first two (2) years of this Agreement.
- 11.7 If Licensee fails to comply with the spending requirement set forth in Paragraph 11.5, then The Regents has the right and option to either terminate this Agreement or reduce the exclusive license granted to Licensee to a nonexclusive license. This right, if exercised by The Regents, supersedes the rights granted in Article 2 (Grant).
- 11.8 To exercise either the right to terminate this Agreement or to reduce the exclusive license granted to Licensee to a non-exclusive license for lack of diligence required in this Article 11 (Due Diligence), The Regents will give Licensee written notice of the deficiency. Licensee thereafter has sixty (60) days to cure the deficiency. If The Regents

has not received written tangible evidence satisfactory to The Regents that the deficiency has been cured by the end of the sixty (60)-day period, then The Regents may, at its option, terminate this Agreement immediately without the obligation to provide sixty (60) days' notice as set forth in Article 15 (Termination by The Regents) or reduce the exclusive license granted to Licensee to a non-exclusive license by giving written notice to Licensee.

12 PROGRESS AND ROYALTY REPORTS

- 12.1 Beginning on **March 31, 2008** and semi-annually thereafter, Licensee will submit to The Regents a written progress report as described in Paragraph 12.2 below covering Licensee's (and any Affiliates', Joint Ventures', or Sublicensee's) activities related to the development and testing of all Licensed Products and related to the obtaining of the governmental approvals necessary for marketing and the activities required and undertaken in order to meet the diligence requirements set forth in Article 11 (Due Diligence). Progress reports are required for each Licensed Product until the first Sale or other exploitation of that Licensed Product occurs in the United States and shall be again required if Sales of such Licensed Product are suspended or discontinued.
- 12.2 Progress reports submitted under Paragraph 12.1 shall include, but are not limited to, a reasonably detailed summary of the following topics so that The Regents will be able to determine the progress of the development of Licensed Products and will also be able to determine whether or not Licensee has met its diligence obligations set forth in Article 11 (Due Diligence) above:
- 12.2.1 summary of work completed as of the submission date of the progress report;
 - 12.2.2 key scientific discoveries as of the submission date of the progress report;
 - 12.2.3 summary of work in progress as of the submission date of the progress report;
 - 12.2.4 current schedule of anticipated events and milestones, including those event and milestones specified in Article 11 (Due Diligence);
 - 12.2.5 market plans for introduction of Licensed Products including the anticipated and actual market introduction dates of each Licensed Product;
 - 12.2.6 Sublicensees' activities relating to the above items, if there are any Sublicensees;

- 12.2.7 a summary of resources (dollar value) spent in the reporting period; and
- 12.2.8 Licensee's progress in developing any New Licensed Products elected for commercial development by Licensee pursuant to Section 4 of this Agreement.
- 12.3 If Licensee fails to submit a timely progress report to The Regents, then The Regents will be entitled to terminate this Agreement, if Licensee fails to cure such failure within the cure period set forth in Section 15 after notice. If either party terminates this Agreement

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before any Licensed Products are Sold or before this Agreement's expiration, then a final progress report covering the period prior to termination must be submitted within thirty (30) days of termination or expiration.

- 12.4 Licensee has a continuing responsibility to keep The Regents informed of the business entity status (small business entity status or large business entity status as defined by the United States Patent and Trademark Office) of itself, any Affiliates, Joint Ventures, or Sublicensees. Licensee will notify The Regents of any change of its status or that of any Affiliate, Joint Venture, or Sublicensee within thirty (30) days of the change in status.
- 12.5 Licensee will report to The Regents the date of first Sale or other exploitation of a Licensed Product in each country in its first progress and royalty reports following such first Sale of a Licensed Product.
- 12.6 Beginning with the earlier of (i) the first Sale or other exploitation of a Licensed Product or (ii) the first transaction that results in Sublicense Fees accruing to The Regents, Licensee will make quarterly royalty and Sublicense Fee reports to The Regents on or before each February 28 (for the quarter ending December 31), May 31 (for the quarter ending March 31), August 31 (for the quarter ending June 30) and November 30 (for the quarter ending September 30) of each year. Each royalty and Sublicense Fee report will cover Licensee's most recently completed calendar quarter and will, at a minimum, show:
- 12.6.1 the gross invoice prices and Net Sales of Licensed Products Sold or otherwise commercially exploited (itemizing the applicable gross proceeds and any deductions therefrom), and any Attributed Income (itemizing the applicable gross proceeds and any deductions therefrom) due to the Licensee;
 - 12.6.2 the quantity of each type of Licensed Product Sold or otherwise commercially exploited in the U.S.;
 - 12.6.3 the quantity of each Licensed Product made in the U.S. but Sold or otherwise commercially exploited outside the U.S.;
 - 12.6.4 the Earned Royalties, in United States dollars, payable with respect to Net Sales;
 - 12.6.5 the Sublicense Fees, in United States dollars, payable with respect to Attributed Income;
 - 12.6.6 the method, used to calculate the Earned Royalty, specifying all deductions taken and the dollar amount of each such deduction;
 - 12.6.7 the exchange rates used, if any;
 - 12.6.8 the amount of the cash and the amount of the cash equivalent of any non-cash consideration including the method used to calculate the non-cash consideration; and

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12.6.9 any other information reasonably necessary to confirm Licensee's calculation of its financial obligations hereunder.

- 12.7 If no Sales of Licensed Products have been made and no Licensed Products have been otherwise commercially exploited and no Attributed Income is due to Licensee during any reporting period, then a statement to this effect must be provided by Licensee in the immediately subsequent royalty and Sublicense Fee report.

13 BOOKS AND RECORDS

- 13.1 Licensee will keep accurate books and records showing all Licensed Product under development, manufactured, used, offered for Sale, imported, Sold and or otherwise commercially exploited; all Net Sales, all Attributed Income; and all sublicenses granted under the terms of this Agreement. Such books and records will be preserved for at least five (5) years after the date of the payment to which they pertain and will be open to examination by representatives or agents of The Regents during regular business hours to determine their accuracy and assess Licensee's compliance with the terms of this Agreement. Any such examination shall be on reasonable prior notice, and shall be conducted pursuant to a typical confidentiality agreement and in a manner that does not materially disrupt the business of Licensee and is subject to all reasonable conditions relating to access and activities while on Licensee's premises.
- 13.2 The Regents shall pay the fees and expenses of such examination. If, however, an error in royalties of more than five percent (5%) of the total royalties due for any year is discovered in any examination, then Licensee shall bear the fees and expenses of such examination and shall remit such underpayment to The Regents within thirty (30) days of the examination results.

14 LIFE OF THE AGREEMENT

- 14.1 Unless otherwise terminated by operation of law, Paragraph 14.2, or by acts of the parties in accordance with the terms of this Agreement, this Agreement will remain in effect from the Effective Date until the expiration or abandonment of the last of the Patent Rights licensed hereunder.

- 14.2 This Agreement will automatically terminate without the obligation to provide sixty (60) days' notice as set forth in Article 15 (Termination By The Regents) upon the filing of a petition for relief under the United States Bankruptcy Code by or against Licensee as a debtor or alleged debtor.
- 14.3 This Agreement will automatically terminate immediately without the obligation to provide sixty (60) days' notice as set forth in Article 15 (Termination By The Regents) if Licensee files a claim in a legal action that seeks to declare that any portion of Regents Patent Rights is invalid or unenforceable where the filing is by the Licensee, a third party on behalf of the Licensee, or a third party at the written urging of the Licensee. In the event a declaratory judgment results from such a filing, the Licensee shall pay all attorneys fees incurred by The Regents for counsel retained to defend The Regents against such declaratory judgment.

- 14.4 Any termination or expiration of this Agreement will not affect the rights and obligations set forth in the following Articles:

Article I	Definitions
Paragraph 5.8	Late Payments
Article 6	License Issue Fee
Article 8	Payments on Sublicenses
Paragraphs 9.1 and 9.3	Earned Royalties and Minimum Annual Royalties
Article 13	Books and Records
Article 14	Life of the Agreement
Article 17	Disposition of Licensed Products on Hand Upon Termination or Expiration
Article 18	Use of Names and Trademarks
Article 19	Limited Warranty
Article 20	Limitation of Liability
Paragraphs 21.4 & 21.5	Patent Prosecution and Maintenance
Article 24	Indemnification
Article 25	Notices
Article 29	Governing Laws; Venue; Attorneys Fees
Article 32	Confidentiality

- 14.5 The termination or expiration of this Agreement will not relieve Licensee of its obligation to pay any fees, royalties or other payments owed to The Regents at the time of such termination or expiration and will not impair any accrued right of The Regents, including the right to receive Earned Royalties in accordance with Articles 8 (Payments on Sublicenses), 9 (Earned Royalties and Minimum Annual Royalties) and 17 (Disposition of Licensed Products Upon Termination or Expiration).

15 TERMINATION BY THE REGENTS

If Licensee fails to perform or violates any material term of this Agreement, then The Regents may give written notice of such default ("Notice of Default") to Licensee. If Licensee fails to repair such material default within sixty (60) days after the effective date of such notice, then The Regents will have the right to immediately terminate this Agreement and its licenses by providing a written notice of termination ("Notice of Termination") to Licensee.

16 TERMINATION BY LICENSEE

Licensee has the right at any time to terminate this Agreement by providing a Notice of Termination to The Regents. Moreover, Licensee will be entitled to terminate the rights under Patent Rights on a country-by-country basis by giving notice in writing to The Regents. Termination of this Agreement (but not termination of any patents or patent applications under Patent Rights, which termination is subject to Paragraph 21.5) will be effective sixty (60) days from the effective date of such notice.

17 DISPOSITION OF LICENSED PRODUCTS UPON TERMINATION OR EXPIRATION

- 17.1 Upon early termination (but not expiration) of this Agreement, within a period of one hundred and twenty (120) days after the date of termination, Licensee is entitled to dispose of all previously made or partially made Licensed Product, but no more, provided that the Sale or use of such Licensed Product is subject to the terms of this Agreement, including, but not limited to, the rendering of reports and payment of Earned Royalties, Sublicense Fees and any other payments therefor required under this Agreement. Licensee will not otherwise use or practice the Patent Rights, or practice the Licensed Method, in a manner constituting patent infringement after the date of early termination.
- 17.2 If applicable Patent Rights exist at the time of any making, Sale, offer for Sale, or import of a Licensed Product or the time of any Sale, offer for Sale, then Earned Royalties shall be paid at the times provided herein and royalty reports shall be rendered in connection therewith, notwithstanding the absence of applicable Patent Rights with respect to such Licensed Product at any later time. Otherwise, no Earned Royalties shall be paid on the Sales of such product. Any fees or other payments accrued and owed to The Regents at the time of expiration of the Agreement not based on the Sales of a Licensed Product will be paid to The Regents at the time such fee or other payment would have been due had this Agreement not expired.

18 USE OF NAMES AND TRADEMARKS

Nothing contained in this Agreement will be construed as conferring any right to either party to use in advertising, publicity or other promotional activities any name, trade name, trademark or other designation of the other party (including a contraction, abbreviation or simulation of any of the foregoing). Without Licensee's consent case-by-case, The Regents may list Licensee's name as a licensee of technology from The Regents without further identifying the technology. Unless required by law or unless consented to in writing by the Director, Office of Technology Management of the University of California, San Francisco, the use by Licensee of the name "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity or other promotional activities is expressly prohibited.

19 LIMITED WARRANTY

- 19.1 The Regents warrants to Licensee that it has the lawful right to grant the license rights granted under this Agreement, that it believes it owns the Patent Rights and that, to the knowledge of the licensing professional responsible for administration of this Agreement after reasonable investigation and inquiry and as of the Effective Date, it has not granted to any third party any license rights in the licensed Field of Use under any of the Patent Rights.
- 19.2 Except as expressly set forth in this Agreement, this license and the associated Inventions, Patent Rights, Licensed Products, and Licensed Methods are provided by The Regents WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. THE REGENTS MAKES NO EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY THAT THE INVENTION, PATENT RIGHTS,

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LICENSED PRODUCTS, OR LICENSED METHODS WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER RIGHTS.

- 19.3 This Agreement does not:
- 19.3.1 express or imply a warranty or representation as to the validity, enforceability, or scope of any Patent Rights; or
- 19.3.2 express or imply a warranty or representation that anything made, used, Sold, offered for Sale or imported or otherwise exploited under any license granted in this Agreement is or will be free from infringement of patents, copyrights, or other rights of third parties; or
- 19.3.3 obligate The Regents to bring or prosecute actions or suits against third parties for patent infringement except as provided in Article 23 (Patent Infringement); or
- 19.3.4 confer by implication, estoppel or otherwise any license or rights under any patents or other rights of The Regents other than Patent Rights, regardless of whether such patents are dominant or subordinate to Patent Rights; or
- 19.3.5 obligate The Regents to furnish any New Developments, know-how, technology or information not provided in Patent Rights.

20 LIMITATION OF LIABILITY

THE REGENTS AND LICENSEE WILL NOT BE LIABLE FOR ANY LOST PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST BUSINESS, ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT OR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SPECIAL DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES OR THE REGENTS ARISING OUT OF OR RELATED TO THIS AGREEMENT FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF THE REGENTS OR LICENSEE (AS APPLICABLE) HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, PROVIDED THAT THE FOREGOING PROVISION SHALL NOT BE CONSTRUED TO LIMIT LICENSEE'S INDEMNIFICATION OBLIGATION UNDER THIS AGREEMENT.

21 PATENT PROSECUTION AND MAINTENANCE

- 21.1 As long as Licensee has paid Patent Prosecution Costs as provided for in this Article 21 (Patent Prosecution and Maintenance), The Regents will diligently prosecute and maintain the United States and foreign patents comprising the Patent Rights using counsel of its choice selected from the list of law firms previously approved by The Regents and reasonably acceptable to Licensee. The Regents' counsel will take instructions only from The Regents. The Regents will provide Licensee with copies of all relevant documentation so that Licensee will be informed of the continuing

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prosecution and may comment upon such documentation sufficiently in advance of any initial deadline for filing a response, provided, however, that if Licensee has not commented upon such documentation in a reasonable time for The Regents to sufficiently consider Licensee's comments prior to a deadline with the relevant government patent office, or The Regents must act to preserve the Patent Rights, The Regents will be free to respond without consideration of Licensee's comments, if any. Licensee agrees to keep this documentation confidential as provided for in Article 32 (Confidentiality).

- 21.2 The Regents shall use reasonable efforts to amend any patent application to include claims reasonably requested by Licensee to protect the products and services contemplated to be Sold, or the Licensed Method to be practiced, under this Agreement.
- 21.3 Licensee will apply for an extension of the term of any patent included within the Patent Rights if appropriate under the Drug Price Competition and Patent Term Restoration Act of 1984. Licensee shall prepare all documents and The Regents agrees to execute the documents and to take additional action as Licensee reasonably requests in connection therewith. Licensee shall be liable for all costs relating to such application.
- 21.4 Licensee will bear the costs of preparing, filing, prosecuting and maintaining all United States patents and patent applications contemplated by this Agreement ("Patent Prosecution Costs"). Patent Prosecution Costs billed by The Regents' counsel will be rebilled to Licensee and are due within thirty (30) days of rebilling by The Regents. These Patent Prosecution Costs will include, without limitation, patent prosecution costs for the Inventions incurred by The Regents prior to the execution of this Agreement and any patent prosecution costs that may be incurred for patentability opinions, re-examination, re-issue, interferences, oppositions or inventorship determinations. Prior Patent Prosecution Costs will be due upon execution of this Agreement and billing by The Regents and as of the Effective Date totals [*].

- 21.5 Licensee will be obligated to pay any Patent Prosecution Costs incurred during the three (3)-month period after receipt by either party of a Notice of Termination, even if the invoices for such Patent Prosecution Costs are received by Licensee after the end of the three (3)-month period following receipt of a Notice of Termination. Licensee may terminate its obligation to pay Patent Prosecution Costs with respect to any given patent application or patent under Patent Rights in any or all designated countries upon three (3)-months' written notice to The Regents. The Regents may continue prosecution and/or maintenance of such application(s) or patent(s) at its sole discretion and expense, provided, however, that Licensee will have no further right or licenses thereunder. Non-payment of Patent Prosecution Costs may be deemed by The Regents as an election by Licensee not to maintain such application(s) or patent(s).
- 21.6 The Regents may file, prosecute or maintain patent applications or patents at its own expense in any country in which Licensee has not elected to file, prosecute or maintain patent applications or patents in accordance with this Article 21 (Patent Prosecution and Maintenance) and those applications, resultant patents and patents will not be subject to this Agreement.

22 PATENT MARKING

Licensee will mark all Licensed Products made, used or Sold under the terms of this Agreement or their containers in accordance with the applicable patent marking laws.

23 PATENT INFRINGEMENT

- 23.1 In the event that The Regents (to the extent of the actual knowledge of the licensing professional responsible for the administration of this Agreement) or Licensee learns of infringement of potential commercial significance of any patent licensed under this Agreement, the knowledgeable party will provide the other (i) with written notice of such infringement and (ii) with any evidence of such infringement available to it (the "Infringement Notice"). During the period in which, and in the jurisdiction where, Licensee has exclusive rights under this Agreement, neither The Regents nor Licensee will notify a possible infringer of infringement or put such infringer on notice of the existence of any Patent Rights without first obtaining consent of the other.. If Licensee puts such infringer on notice of the existence of any Patent Rights with respect to such infringement without first obtaining the written consent of The Regents and if a declaratory judgment action is filed by such infringer against The Regents, then Licensee's right to initiate a suit against such infringer for infringement under Paragraph 23.2 below will terminate immediately without the obligation of The Regents to provide notice to Licensee. Both The Regents and Licensee will use their diligent efforts to cooperate with each other reasonably and in good faith to terminate such infringement without litigation.
- 23.2 If infringing activity of potential commercial significance by the infringer has not been abated within ninety (90) days following the date the Infringement Notice is given, then Licensee may institute suit for patent infringement against the infringer. The Regents may voluntarily join such suit at its own expense, but may not otherwise commence suit against the infringer for the acts of infringement that are the subject of Licensee's suit or any judgment rendered in that suit. Licensee may not join The Regents as a party in a suit initiated by Licensee without The Regents' prior written consent. If, in a suit initiated by Licensee, The Regents is involuntarily joined other than by Licensee, then Licensee will pay any costs incurred by The Regents arising out of such suit, including but not limited to, any legal fees of counsel that The Regents selects and retains to represent it in the suit.
- 23.3 If, within a hundred and twenty (120) days following the date the Infringement Notice takes effect, infringing activity of potential commercial significance by the infringer has not been abated and if Licensee has not brought suit against the infringer, then The Regents may institute suit for patent infringement against the infringer. If The Regents institutes such suit, then Licensee may not join such suit without The Regents' consent and may not thereafter commence suit against the infringer for the acts of infringement that are the subject of The Regents' suit or any judgment rendered in that suit.
- 23.4 Notwithstanding anything to the contrary in this Agreement, in the event that the infringement or potential infringement pertains to an issued patent included within the

Patent Rights and written notice is given under the Drug Price Competition and Patent Term Restoration Act of 1984 (and/or foreign counterparts of this Law), then the party in receipt of such notice under the Act (in the case of The Regents to the extent of the actual knowledge of the licensing officer responsible for the administration of this Agreement) shall provide the Infringement Notice to the other party promptly. If the time period is such that Licensee will lose the right to pursue legal remedy for infringement by not notifying a third party or by not filing suit, the notification period and the time period to file suit will be accelerated to within forty-five (45) days of the date of such notice under the Act to either party.

- 23.5 Any recovery or settlement received in connection with any suit will first be shared by The Regents and Licensee equally to cover any litigation costs each incurred and next shall be paid to The Regents or Licensee to cover any litigation costs it incurred in excess of the litigation costs of the other. In any suit initiated by Licensee, any recovery in excess of litigation costs will be shared between Licensee and The Regents as follows: (a) for any recovery other than amounts paid for willful infringement: (i) The Regents will receive [*] of the net recovery if The Regents was not a party in the litigation and did not incur any out-of-pocket and invoiced litigation costs that were not reimbursed by Licensee (or its designee) prior to Licensee's receipt of the recovery, (ii) The Regents will receive [*] of the net recovery if The Regents was a party in the litigation whether joined as a party under the provisions of Paragraph 23.2 or otherwise, but The Regents did not incur any out-of-pocket and invoiced litigation costs that were not reimbursed by Licensee (or its designee) prior to any settlement or judgment resulting in Licensee's receipt of the recovery, and (iii) The Regents will receive [*] of the recovery if The Regents incurred out-of-pocket and invoiced litigation costs in connection with the litigation in amounts reasonably equal to at least half of the out-of-pocket and invoiced costs incurred by Licensee; and (b) for any recovery for willful infringement, The Regents will receive [*] of the recovery. In any suit initiated by The Regents, any recovery in excess of litigation costs will belong to The Regents. The Regents and Licensee agree to be bound by all determinations of patent infringement, validity and enforceability (but no other issue) resolved by any adjudicated judgment in a suit brought in compliance with this Article 23 (Patent Infringement).

- 23.6 Any agreement made by Licensee for purposes of settling litigation or other dispute shall comply with the requirements of Article 3 (Sublicenses) of this Agreement.
- 23.7 Each party will cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party who initiated the suit (unless such suit is being jointly prosecuted by the parties).
- 23.8 Any litigation proceedings will be controlled by the party bringing the suit, except that The Regents may be represented by counsel of its choice in any suit brought by Licensee.
- 24 **INDEMNIFICATION**
- 24.1 Licensee will, and will require its Sublicensees to, indemnify, hold harmless and defend The Regents, the sponsors of the research that led to the Inventions, and the inventors of

any inventions claimed in patents or patent applications under Patent Rights (including the Licensed Products, and Licensed Methods contemplated thereunder) and their employers, and the officers, employees and agents of any of the foregoing, against any and all claims, suits, losses, damage, costs, fees and expenses resulting from, or arising out of, the exercise of this license or any sublicense. This indemnification will include, but not be limited to, any product liability. If The Regents reasonably believes that there will be a conflict of interest or it will not otherwise be adequately represented by counsel chosen by Licensee to defend The Regents in accordance with this Paragraph 24.1, then The Regents may retain counsel of its choice to represent it. If The Regents retains such counsel due to a conflict of interest, the Licensee will pay all expenses for such representation. If The Regents retains such counsel because it believes it will not otherwise be adequately represented by counsel chosen by the Licensee, then The Regents will pay all expenses for such representation. If The Regents retains such counsel, Licensee will not be responsible for indemnifying The Regents for any losses, damage, costs, fees and expenses that result from inadequate defense provided by such counsel.

- 24.2 During the term of this Agreement and for three (3) years following its termination, the Licensee, at its sole cost and expense, will insure its activities in connection with any work performed hereunder and will obtain and maintain the following insurance (or an equivalent program of self-insurance):

- 24.2.1 Comprehensive or commercial form general liability insurance (contractual liability included) with limits as follows:

Each Occurrence	\$	1,000,000
Personal and Advertising Injury	\$	1,000,000
General Aggregate (commercial form only)	\$	2,000,000

- 24.2.2 Worker's Compensation as legally required in the jurisdiction in which Licensee is doing business.

- 24.3 Notwithstanding Paragraph 24.2, no later than the earlier of: i) sixty (60) days before the anticipated date of market introduction of any Licensed Product; or ii) sixty (60) days before the first use of any Licensed Product in a human under this Agreement, Licensee, at its sole cost and expense, shall insure its activities in connection with the work under this Agreement and obtain, keep in force and maintain the following insurance (or an equivalent program of self-insurance) during the term of this Agreement and for three (3) years following its termination:

- 24.3.1 Comprehensive or Commercial Form General Liability Insurance (contractual liability included) with limits as follows:

Each Occurrence	\$	5,000,000
Products/Completed Operations Aggregate	\$	10,000,000
Personal and Advertising Injury	\$	5,000,000
General Aggregate (commercial form only)	\$	10,000,000

- 24.3.2 Worker's Compensation as legally required in the jurisdiction in which Licensee is doing business.

- 24.4 If the insurance under Paragraphs 24.2 and 24.3 is written on a claims-made form, it shall continue for three (3) years following termination or expiration of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date of this Agreement.
- 24.5 The coverage and limits referred to in Paragraph 24.2.1 and 24.2.2 above will not in any way limit the liability of Licensee under this Article 24 (Indemnification). Upon the execution of this Agreement, Licensee will furnish The Regents with certificates of insurance evidencing compliance with all requirements. Such certificates will:
- 24.5.1 Provide for thirty (30) days' (ten (10) days for non-payment of premium) advance written notice to The Regents of any cancellation of insurance coverage; Licensee will promptly notify The Regents of any material modification of the insurance coverage;
- 24.5.2 Indicate that The Regents has been endorsed as an additional insured under the coverage described above in Paragraph 24.2.1; and
- 24.5.3 Include a provision that the coverage will be primary and will not participate with, nor will be excess over, any valid and collectable insurance or program of self-insurance maintained by The Regents.
- 24.6 The Regents will promptly notify Licensee in writing of any claim or suit brought against The Regents for which The Regents intends to invoke the provisions of this Article 24 (Indemnification). Licensee will keep The Regents informed of its defense of any claims pursuant to this Article 24 (Indemnification).

25 NOTICES

25.1 Any notice or payment required to be given to either party under this Agreement will be in writing and will be deemed to have been properly given and to be effective as of the date specified below if delivered to the respective address given below or to another address as designated by written notice given to the other party: on the date of delivery if delivered in person; on the date of mailing if mailed by first-class certified mail, postage paid; or on the date of mailing if mailed by any global express carrier service that requires the recipient to sign the documents demonstrating the delivery of such notice or payment.

In the case of Licensee: Chief Executive Officer
BioProtection Systems Corporation
2901 South Loop Drive, Suite 3360
Ames, IA 50010

In the case of The Regents: Director

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Office of Technology Management
185 Berry Street, Suite 4603
San Francisco, California 94107
RE: [*]

26 ASSIGNABILITY

This Agreement is personal to the Licensee. The Licensee may not assign or transfer this Agreement, including by merger, operation of law, or otherwise, without The Regents' prior written consent, except that such consent will not be required in the case of assignment or transfer to an Affiliate or to a party that succeeds to all or substantially all of Licensee's business or assets relating to this Agreement, whether by sale, merger, operation of law or otherwise, provided that such assignee or transferee promptly agrees to be bound by the terms and conditions of this Agreement and signs The Regents' standard substitution of party letter (the form of which is attached hereto as **Appendix B**). Any attempted assignment by the Licensee in violation of this Article 26 (Assignment) will be null and void. This Agreement is binding upon and will inure to the benefit of The Regents, its successors and assigns.

27 WAIVER

No waiver by either party of any breach or default of any of the agreements contained herein will be deemed a waiver as to any subsequent and/or similar breach or default. No waiver will be valid or binding upon the parties unless made in writing and signed by a duly authorized officer of each party.

28 FORCE MAJEURE

28.1 Except for Licensee's obligation to make any payments to The Regents hereunder, the parties shall not be responsible for any failure to perform due to the occurrence of any events beyond their reasonable control which render their performance impossible or onerous, including, but not limited to: accidents (environmental, toxic spill, etc.); acts of God; biological or nuclear incidents; casualties; earthquakes; fires; floods; governmental acts; orders or restrictions; inability to obtain suitable and sufficient labor, transportation, fuel and materials; local, national or state emergency; power failure and power outages; acts of terrorism; strike; and war.

28.2 Either party to this Agreement, however, will have the right to terminate this Agreement upon thirty (30) days' prior written notice if either party is unable to fulfill its obligations under this Agreement due to any of the causes specified in Paragraph 28.1 for a period of one (1) year.

29 GOVERNING LAWS; VENUE; ATTORNEYS' FEES

29.1 THIS AGREEMENT WILL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, excluding any choice of law rules that would direct the application of the laws of another jurisdiction and without regard to which party drafted particular provisions of this

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Agreement, but the scope and validity of any patent or patent application will be governed by the applicable laws of the country of such patent or patent application.

29.2 Any legal action brought by the parties hereto relating to this Agreement will be conducted in San Francisco, California,

29.3 The prevailing party in any suit related to this Agreement will be entitled to recover its reasonable attorneys' fees in addition to its costs and necessary disbursements.

30 GOVERNMENT APPROVAL OR REGISTRATION

If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee will assume all legal obligations to do so. Licensee will notify The Regents if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. Licensee will make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

31 COMPLIANCE WITH LAWS

Licensee shall comply with all applicable international, national, state, regional and local laws and regulations in performing its obligations hereunder and in its use, manufacture, Sale or import of the Licensed Products, or practice of the Licensed Method. Licensee will observe all applicable United States and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations. Licensee shall manufacture Licensed Products and practice the Licensed Method in compliance with applicable government importation laws and regulations of a particular country for Licensed Products made outside the particular country in which such Licensed Products are used, Sold or otherwise exploited.

32 CONFIDENTIALITY

- 32.1** Licensee and The Regents will treat and maintain the other party's proprietary business, patent prosecution, software, engineering drawings, process and technical information and other proprietary information, including the negotiated terms of this Agreement and any progress reports and royalty reports and any sublicense agreement issued pursuant to this Agreement ("Proprietary Information") in confidence using at least the same degree of care as the receiving party uses to protect its own proprietary information of a like nature from the date of disclosure until five (5) years after the termination or expiration of this Agreement.
- 32.2** Each of Licensee and The Regents may use and disclose the other party's Proprietary Information to its respective employees, agents, consultants, contractors and, in the case of Licensee, its Sublicensees, provided that such parties are bound by a like duty of confidentiality as that found in this Article 32 (Confidentiality). Notwithstanding anything to the contrary contained in this Agreement, The Regents may release this Agreement or any sublicense, including any terms thereof, and information regarding

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royalty payments or other income received in connection with this Agreement to the inventors, senior administrative officials employed by The Regents and individual Regents upon their request. If such release is made, The Regents will request that such terms be kept in confidence in accordance with the provisions of this Article 32 (Confidentiality). In addition, notwithstanding anything to the contrary in this Agreement, if a third party inquires whether a license to Patent Rights is available, then The Regents may disclose the existence of this Agreement and the extent of the grant in Articles 2 (Grant) and 3 (Sublicenses) and related definitions to such third party, but will not disclose the name of Licensee unless Licensee has already made such disclosure publicly. Further, Licensee may disclose the existence and terms of this Agreement: (a) in confidence to its directors, officers, investors and professional service providers and to bona fide prospective investors, acquirors, strategic partners, or merger partners and their respective professional advisors; and (b) publicly to the extent required by applicable law or regulation, and provided that Licensee uses reasonable efforts to obtain an order protecting the confidentiality of sensitive technical or financial terms hereof to the extent such order is legally available.

- 32.3** All written Proprietary Information disclosed by a party will be labeled or marked confidential or proprietary. If the Proprietary Information is orally disclosed, it will be reduced to writing or some other physically tangible form, marked and labeled as confidential or proprietary by the disclosing party and delivered to the receiving party within thirty (30) days after the oral disclosure.
- 32.4** Nothing contained herein will restrict or impair, in any way, the right of Licensee or The Regents to use or disclose any Proprietary Information of the other party:
- 32.4.1** that recipient can demonstrate by written records was previously known to it prior to its disclosure by the disclosing party;
 - 32.4.2** that recipient can demonstrate by written records is now, or becomes in the future, public knowledge other than through acts or omissions of recipient;
 - 32.4.3** that recipient can demonstrate by written records was obtained lawfully and without restrictions on the recipient from sources independent of the disclosing party; and
 - 32.4.4** that The Regents is required to disclose pursuant to the California Public Records Act or other applicable law.

Each of Licensee or The Regents also may disclose the other party's Proprietary Information to the extent that such Proprietary Information is required to be disclosed (i) to a governmental entity or agency in connection with seeking any governmental or regulatory approval, governmental audit, or other governmental contractual requirement or (ii) by law or court order, provided that the recipient uses reasonable efforts to give the party owning the Proprietary Information sufficient notice of such required disclosure to allow the party owning the Proprietary Information reasonable opportunity to object to, and to take legal action to prevent, such disclosure.

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- 32.5** Upon termination of this Agreement, Licensee and The Regents will destroy or return any of the disclosing party's Proprietary Information in its possession within fifteen (15) days following the termination of this Agreement. Licensee and The Regents will provide each other, within thirty (30) days following termination, with written notice that such Proprietary Information has been returned or destroyed. Each party may, however, retain one copy of such Proprietary Information for archival purposes in non-working files.

33 MISCELLANEOUS

- 33.1** The headings of the several sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.
- 33.2** This Agreement is not binding on the parties until it has been signed below on behalf of each party. It is then effective as of the Effective Date.
- 33.3** No amendment or modification of this Agreement is valid or binding on the parties unless made in writing and signed on behalf of each party.

- 33.4 This Agreement embodies the entire understanding of the parties and supersedes all previous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof.
- 33.5 In case any of the provisions contained in this Agreement is held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions of this Agreement and this Agreement will be construed as if such invalid, illegal or unenforceable provisions had never been contained in it
- 33.6 No provisions of this Agreement are intended or shall be construed to confer upon or give to any person or entity other than The Regents and Licensee any rights, remedies or other benefits under, or by reason of, this Agreement.
- 33.7 In performing their respective duties under this Agreement, each of the parties will be operating as an independent contractor. Nothing contained herein will in any way constitute any association, partnership, or joint venture between the parties hereto, or be construed to evidence the intention of the parties to establish any such relationship. Neither party will have the power to bind the other party or incur obligations on the other party's behalf without the other party's prior written consent.

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IN WITNESS WHEREOF, both The Regents and Licensee have executed this Agreement, in duplicate originals, by their respective and duly authorized officers on the day and year written.

Licensee

The Regents of the University of California

By: _____
(Signature)

By: _____
(Signature)

Name: Charles J. Link
Title: Chief Executive Officer
Date: July 3, 2008

Name: Joel B. Kirschbaum
Title: Director, UCSF Office of Technology Management
Date: 7/29/08

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APPENDIX A

KNOW-HOW

1. [*]
2. [*]
3. [*]

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APPENDIX B

UCSF Case Nos. [*]

CONSENT TO SUBSTITUTION OF PARTY

This substitution of parties ("Agreement") is effective this day of _____, 20____, among The Regents of the University of California ("The Regents"), a California corporation, having its statewide administrative offices at 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200 and acting through its Office of Technology Management, University of California San Francisco ("UCSF"), 185 Berry Street, Suite 4603, San Francisco, California 94107; BioProtection Systems Corporation, a Delaware corporation, having a principal place of business at 2901 South Loop Drive, Suite 3360, Ames, Iowa 50010-8646 ("BPS"); and [new licensee name] ["YYY"] a _____ corporation, having a principal place of business at _____.

BACKGROUND

A. The Regents and BPS entered into a License Agreement effective _____ (UC Control No. - - -), entitled Recombinant Yellow Fever Virus as a Vaccine Vector ("License Agreement"), wherein BPS was granted certain rights.

B. BPS desires that [YYY] be substituted as Licensee (defined in the License Agreement) in place of BPS, and The Regents is agreeable to such substitution.

C. [YYY] has read the License Agreement and agrees to abide by its terms and conditions.

The parties agree as follows:

1. [YYY] assumes all liability and obligations under the License Agreement and is bound by all its terms in all respects as if it were the original Licensee of the License Agreement in place of BPS.
2. [YYY] is substituted for BPS, provided that [YYY] assumes all liability and obligations under the License Agreement as if [YYY] were the original party named as Licensee as of the effective date of the License Agreement.

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3. The Regents releases BPS from all liability and obligations under the License Agreement arising before or after the effective date of this Agreement.

The parties have executed this Agreement in triplicate originals by their respective authorized officers on the following day and year.

BIOPROTECTION SYSTEMS CORPORATION

By: _____
(Signature)

Name: _____
(Please print)

Title: _____

Date: _____

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By: _____

Name: _____

Title: [Licensing Officer]
Office of Technology Management

Date: _____

[YYY] COMPANY

By: _____
(Signature)

Name: _____
(Please print)

Title: _____

Date: _____

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CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

**SOLE LICENSE AGREEMENT
FOR
RECOMBINANT VESICULAR STOMATITIS VIRUS VACCINES FOR
VIRAL HEMORRHAGIC FEVERS**

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA,
as represented by the Minister of Health,
acting through the Public Health Agency of Canada

("Canada")

AND:

BIOPROTECTION SYSTEMS CORPORATION,
a company incorporated as a subchapter C corporation
under the laws of Delaware, having its registered office at
Iowa State University Research Park,
2901 South Loop Drive, Suite 3360, Ames, Iowa, USA 50010

("Company")

INTRODUCTION:

- A. **WHEREAS** Canada is one of the major performers in Canada of vaccine research relating to viral hemorrhagic fever ("VHF") viruses;
- B. **WHEREAS** Canada has developed the technology known as the "Recombinant vesicular stomatitis virus vaccine for viral hemorrhagic fevers";
- C. **WHEREAS** the main features of the technology include [*];
- D. **WHEREAS** the Company has requested a license from Canada to develop and **Commercialize** the technology;
- E. **WHEREAS** Canada is willing to grant to the Company a license to develop and **Commercialize** the technology on the terms and conditions set out in this **License Agreement**;
- F. **WHEREAS** the fundamental principles underlying this **License Agreement** are that:
- i) Canada surrenders its commercial self-interest to the Company; and

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-
- ii) In exchange, in good faith, the Company uses its discretion and experience in product development and regulatory affairs, its commercial resources and business savvy and, assuming that any relevant statutory, regulatory or administrative authorizations or permits for a vaccine product are obtained, its marketing, sale and distribution savvy for the benefit of both **Parties**.
- G. **WHEREAS** the salient elements of this **License Agreement** are:
- i) Canada grants to the Company sole, worldwide, revocable and royalty-bearing license to make, use, improve, develop and **Commercialize** the technology in the field of prevention and prophylaxis against and treatment of VHF viruses in humans, whether before or after exposure;
 - ii) Canada will retain non-commercial rights in the technology, including rights to use and further develop the technology for educational and research purposes;
 - iii) The Company grants to Canada a non-exclusive and royalty-free license to make, use, manufacture and sell the VHF vaccine products developed by the Company in the exercise of the **Licensed Rights**, in the event of a public health emergency;
 - iv) The Company will make good faith efforts to collaborate with Canada on [*] of the Company's basic research and development activities related to VHF virus vaccines; and

v) The *Parties* agree to maintain the confidentiality of each other's *Confidential Information* provided under this *License Agreement*.

H. **WHEREAS** the expectations of the Parties are that the Company will use commercially reasonable efforts to develop a *VHF* vaccine and, assuming that any relevant and necessary statutory, regulatory and administrative authorizations or permits that may be required for a vaccine product are obtained, *Commercialize* it; and

I. **WHEREAS** the Parties have agreed to their commercial relationship on the terms and conditions set out in this *License Agreement*.

NOW THEREFORE in consideration of the premises, the terms and conditions hereinafter contained and other good and valuable consideration, the receipt of which is hereby acknowledged by each party, the Parties hereto covenant and agree as follows:

1.0 DEFINITIONS

1.1 "Affiliate"

means any corporation, subsidiary, partnership or other entity which the Company, directly or indirectly, controls (or has common control of) or which, directly or indirectly, controls the Company:

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1.1.1 through the ownership of more than 50% of the voting share capital, and the votes attached to those securities are sufficient, if exercised, to elect a majority of the directors of the body corporate; or

1.1.2 otherwise has the possession, direct or indirect, of the powers to direct or cause the direction of the management or policies of a person or entity; whether through ownership of equity participation, voting securities, or beneficial interests; by contract, by agreement, or otherwise.

Identified in appendix D ("Affiliates") are the *Affiliates* of the Company In existence on the *Execution Date*.

1.2 "Commercialization" or "Commercialize"

means:

1.2.1 the commercial making, using, *Sale* or offering to sell;

1.2.2 of the products resulting from the exercise of the *Licensed Rights*;

1.2.3 by the Company, its *Affiliates* or its sub-licensees;

1.2.4 in the *Territory*;

1.2.5 within the *Field of Use*; and

1.2.6 for the maximum commercial return to the Company and Canada in accordance with Article 4 (Exploitation of *Licensed Rights*) including:

1.2.6.2 the Company obtaining any statutory, regulatory or administrative authorizations or permits that may be required in order for the Company to legally carry out all of its activities under the *License Agreement*.

1.3 "Confidential Information"

means, with respect to a *Party*, all proprietary information of any type, or any part or portion thereof, that is disclosed by that *Party* to the other *Party* pursuant to this *License Agreement*, whether or not such information is specifically marked or identified as confidential at the time of disclosure, which may include without limitation.

1.3.1 all scientific, technical, business, financial, legal, marketing or strategic information (including trade secrets and proprietary know-how);

1.3.2 all documented research, development, demonstration or engineering work, information that can be or is used to define a design or process or procure, produce, support or operate material and equipment, methods of production, regardless of its form:

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1.3.3 all drawings, blueprints, patterns, plans, flow-charts, equipment, parts lists, software and procedures, specifications formulae, designs, technical data, descriptions, related instruction manuals, records and procedures;

1.3.4 information that is non-public, confidential, privileged or proprietary in nature.

which may have actual or potential economic value in part from not being known and may be positive (what works) or negative (what does not) information;

1.3.5 however fixed, stored, expressed or embodied (and includes, without limitation, samples, prototypes, specimens and derivatives);

1.3.6 and including information disclosed during discussions, meetings, tests, demonstrations, correspondence or otherwise.

1.4 “Confidentiality Agreements”

means the agreements previously executed between the **Parties** on the 1st day of May, 2007, November 1, 2008, and the amending letter of April 14, 2010 respectively, and contained in Appendix B (**Confidentiality Agreements**).

1.5 “Dispute”

for purposes of Article 16 (Alternate Dispute Resolution (ADR)), and paragraph 17.17 (Forum Conveniens)

1.5.1 includes without limitation any controversy, conflict, claim, disagreement or difference of opinion arising out of the **License Agreement**, (irrespective of whether it is premised on contract, tort or trust / equity), including, without limitation, any issues concerning the breach, interpretation, rectification, termination, performance, enforcement or validity of the **License Agreement** or the rights and liabilities of the **Parties** in relation to the **License Agreement**;

1.5.2 irrespective of the fact that there is no arguable defence under the **License Agreement**, or that the facts or law are undisputable and subject to judicial summary proceedings;

but **Dispute** does not encompass

1.5.3 any controversy, conflict, claim, disagreement or difference of opinion or the rights and liabilities of the **Parties**

1.5.3.2 under any collateral or antecedent agreements independent of the **License Agreement**; or

1.5.3.3 with any emanation of Her Majesty the Queen in Right of Canada, other than the Public Health Agency of Canada.

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1.6 “Execution Date”

means the date on which the last signature is affixed to this **License Agreement**.

1.7 “Field of Use”

means the application and use of the **Licensed Rights** only with products to be sold or used by the Company, or its **Affiliates** or sublicensees or marketed through specified trade channels in the field of prevention and prophylaxis against and treatment of VHF viruses in humans and for no other purposes whatsoever.

1.8 “Generally Accepted Accounted Principles (GAAP)”

means, at any time, accounting principles generally accepted in Canada as recommended in the Handbook of the Canadian Institute of Chartered Accountants at the relevant time, applied on a consistent basis (except for necessary or advisable changes in accordance with the promulgations of the Canadian Institute of Chartered Accountants). If and when Canadian GAAP does not address an accounting issue, then generally accepted accounting principles in the United States will apply.

1.9 “Improvement(s)”

means any modification, improvement, enhancement, variation, refinement, derivative or development relating to the **Licensed Rights** which

1.9.1 infringes any one or more claims of any of the **Patents**; or

1.9.2 constitutes a technological advance of any degree using any of the **Patents** or **Confidential Information** (irrespective of whether it infringes one or more claims of the **Patents**); and

1.9.3 was made and reduced into practice during the term of the **License Agreement** or within 12 (twelve) months of its termination or expiration by either **Party**; and

1.9.4 when applicable, Canada is lawfully entitled to communicate and license to the Company without breaching any restrictions on use or disclosure to third parties.

1.10 “Intellectual Property”

means, as of the **Execution Date**, all **Patents**, trade-marks, copyrights, industrial designs, trade-names, trade secrets, **Confidential Information** and other intellectual property rights whether registered or not, whether proprietary or not

i) owned by or licensed to Canada, relating to the **Licensed Rights**; or

ii) owned by or licensed to the Company, relating to the **Improvements** made by the Company, its **Affiliates** or sub-licensees,

as the case may be.

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1.11 “License Agreement”

means this agreement and including all attached appendices and future amendments, and refers to the whole of this agreement, not to any particular section or portion thereof.

1.12 “Licensed Product(s)”

means any product resulting from *Commercialization* under this *License Agreement*.

1.13 “Licensed Rights”

means the exercise, as of the *Execution Date*, in whole or in part, of

1.13.1 the *Patents*; and

1.13.2 related *Intellectual Property* and *Confidential Information* and any subsequent changes thereto that are expressly incorporated into the *License Agreement*,

within the *Field of Use* as listed in Appendix A (Description of the *Licensed Rights*).

1.14 “Party”

means any one of the signatories to the *License Agreement* and “*Parties*” means both of them.

1.15 “Patents”

means

1.15.1 the patents and patent applications as listed in Appendix A (Description of the *Licensed Rights*);

1.15.2 any author certificates, inventor certificates, utility certificates, improvement patents and models and certificates of addition, and includes any divisions, reissues, renewals, reexaminations and extensions thereof, and all continuations, continuations-in-part and divisionals of the applications for such patents, continuations, continuations-in-part, extensions, re-issues thereof for such patents, including, but not limited to, those patents listed in “Appendix A” and any subsequent patents whose priorities are derived from any patents listed in Appendix A; and

1.15.3 subsequently patented *Improvements* to *Patents*.

1.16 “Sale”

means without limitation the act of transferring (conditionally or unconditionally, permanently or temporarily) the results of the exercise of the *Licensed Rights* for consideration including but not limited to sale, lease, gift, barter, exchange or other

disposition for value. (For greater clarity any internal corporate use / consumption whatsoever of the *Licensed Rights* by the Company or an *Affiliate* or sublicensee shall be deemed a *Sale* at the *Sales Price* at the time of the use / consumption or allocation for internal use / consumption, whichever is the earlier).

1.17 “Sales Price”

means the aggregate gross price paid by an arm’s length purchaser or lessee for any of the results of the exercise of the *Licensed Rights* sold or leased by the Company without deduction, rebate or pass throughs. If the gross price is less than the fair market value, then, for royalty calculation purposes, the gross price shall be the fair market value as set by Canada in its unfettered discretion.

1.18 “Taxes”

means taxes (including, without limitation, sales taxes, goods & services taxes, value added taxes, however described), levies, imposts, deductions, charges, license and registration fees, assessments, withholdings / withholding taxes and duties imposed by any jurisdiction or authority (including stamp and transaction taxes and duties) together with any related interest, penalties, fines and expenses in connection with them.

1.19 “Territory”

means the entire world, always subject to:

1.19.1 the United Nations Act, R.S.C. 1985, Chap. U-2;

1.19.2 the Export & Import Permits Act, R.S.C. 1985;

1.19.3 Chap. E-19, Special Economic Measures Act, S.C. 1992, Chap. 17;

1.19.4 Foreign Extra-Territorial Measures Act, R.S.C. 1985 c. F-29; and

1.19.5 any other pertinent Canadian statutory or regulatory strictures.

For greater clarity *Territory* means all countries and jurisdictions of the world.

1.20 “VHF”

means viral hemorrhagic fevers.

2.0 GRANT & RESERVATIONS

2.1 **Grant:**

Subject to:

- 2.1.1 the definitions, terms and conditions of the **License Agreement**,
- 2.1.2 the Company complying with and not being in breach of any of the provisions of the **License Agreement**, and
- 2.1.3 any third party preemptory rights,

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Canada hereby grants to the Company a personal, non-transferable, sole, revocable, royalty-bearing license for **Commercialization**.

Nothing herein shall constitute in any manner whatsoever:

- 2.1.4 an assignment or other transfer of proprietary rights in the **Licensed Rights** to the Company; or
- 2.1.5 any authorization or permission beyond that expressly given in this **License Agreement**.

2.2 **Carve Out**

Notwithstanding anything to the contrary in the **License Agreement**, Canada retains from the **License Agreement**, any and all absolute and unfettered rights necessary to do the following:

- 2.2.1 improve the **Licensed Rights** or **Patents**;
- 2.2.2 to carry out educational activities;
- 2.2.3 to pursue research and development, directly or indirectly, related to the **Licensed Rights** or **Patents** with or without the Company, collaborators or sponsors, with all attendant rights of publication;
- 2.2.4 to make, have made, manufacture, use, license sell and distribute and to administer (directly or through health care providers) to Canadians products resulting from the exercise of the **Licensed Rights**, the **Patents** and the **Improvements** in the event of a public health emergency pertaining or related to **VHF** in Canada, for the purpose of prevention or treatment of **VHF**, where:
 - 2.2.4.2 the Company has not obtained regulatory approval of its product(s) under the Food and Drugs Act of Canada at the time the emergency is identified by Canada; or
 - 2.2.4.3 the Company is not able to satisfy the demand for its approved product(s) in Canada at the time the emergency is identified by Canada;
- 2.2.5 to make, have made, manufacture, use and distribute and to administer to Canada's staff products resulting from the exercise of the **Licensed Rights**, the **Patents** and the **Improvements**, for the purpose of prevention and treatment of **VHF**, whether in or outside a public health emergency in Canada or abroad, and
- 2.2.6 to make, have made, manufacture, use, license, sell and distribute and to administer (directly or through health care providers) products resulting from the exercise of the **Licensed Rights**, the **Patents** and the **Improvements**, outside of

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Canada, for compassionate care purposes for the prevention or treatment of **VHF**, where:

- 2.2.6.2 the Company has not obtained regulatory approval of its product(s) under the laws of the foreign country in question at the time the compassion care is identified by Canada; or
- 2.2.6.3 the Company is not able to satisfy the demand for its approved products) in the foreign country in question at the time the compassionate care is identified by Canada.

2.3 **Non Compete by Canada**

Subject to clause 2.2, Canada shall not commercially compete with the Company, or grant a license to any third party for commercial purposes, within the **Field of Use** concerning the **Licensed Rights** in the **Territory**.

2.4 **Sublicensing Permitted**

The Company is permitted to sub-license **Affiliates** and non-affiliated or non-controlled parties, on the same terms and conditions of this **License Agreement**. The Company has no right to encumber any contractual, legal or equitable rights the Company may have against any **Affiliate** or sub-licensee in favour of any financial institution or any third party whatsoever.

2.5 **Sublicensing Conditions**

Any sub-license or any amendment to any sub-license granted by the Company to **Affiliates** and non-affiliated or non-controlled parties, shall:

- 2.5.1 be royalty-bearing, revocable, without the right to sub-sub-license, except with the prior written consent of Canada, which consent shall not be unreasonably withheld;
- 2.5.2 carry a royalty rate no less than that prescribed in the **License Agreement**;
- 2.5.3 be only within the **Territory** or any portion thereof;
- 2.5.4 be only within the **Field of Use** or a subset thereof;
- 2.5.5 be subject to the same obligations and restrictions as those required of the Company under the **License Agreement**;
- 2.5.6 be copied to Canada immediately following execution; and
- 2.5.7 not be a *de facto* assignment.

For greater clarity, Canada shall receive from the **Affiliates** and sub-licensees not less than the same amount of consideration Canada would have received from the Company,

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had the Company conducted the **Commercialization** rather than the **Affiliates** or sub-licensees. The Company shall ensure that any monies owing to Canada from the **Affiliates** or sub-licensees are paid to Canada when due, and shall be liable for any such monies irrespective of whether or not the **Affiliate** or sub-licensee paid the Company.

2.6 **Sub-Licensee Consideration**

In addition to the royalties payable by the **Affiliates** and sub-licensees to Canada as contemplated in paragraph 2.5 (Sub-licensing Conditions), the Company shall also pay to Canada [*] paid by the **Affiliates** and sub-licensees to the Company.

2.7 **Termination**

Termination of the **License Agreement** shall also terminate any subsisting sub-licenses, but any consideration due or owing to Canada shall be paid promptly thereafter, and any and all unsatisfied obligations and rights shall subsist until satisfied.

3.0 TERM

3.1 **Term**

This **License Agreement** shall commence on the **Execution Date** and shall continue in force until the expiry of the last to expire of the **Patents** included in the **Licensed Rights**, subject to:

- 3.1.1 early termination as prescribed under Article 15.0 (Termination); and
- 3.1.2 condition subsequent in paragraph 4.1 (Business Plan).

4.0 EXPLOITATION OF LICENSED RIGHTS

4.1 **Business Plan**

The Company shall submit a business plan to Canada within thirty (30) days of the **Execution Date**. Canada shall have the right to request amendments to the business plan in order to ensure maximum commercial return to the Company and Canada in accordance with this Article 4 (Exploitation of Licensed Rights). Once Canada has accepted the business plan, the plan is then Appendix C (Business Plan) and all the Company's representations and statements in the plan are incorporated into the **License Agreement**.

4.2 **Disclosure Requirements**

The business plan shall provide sufficient detail to show how the Company plans to diligently research, develop and promote and make commercially reasonable efforts to **Commercialize**. This business plan shall also disclose any

- 4.2.1 distribution and agency arrangements contemplated by the Company;

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- 4.2.2 market studies pertinent to the **Licensed Rights**;

4.2.3 pro forma financial statements of sufficient detail to allow a thorough financial analysis of the Company's assumptions, projected revenue streams and costs.

4.3 **Continuing Disclosure**

During the term of the **License Agreement**, the Company shall promptly provide to Canada any amendments or updates to the business plan.

4.4 **Inducement**

The Company acknowledges that the business plan as orally presented to Canada in a pre-contractual setting, and subsequently manifested in the written format under paragraph 4.1, as accepted by Canada is the major inducement for Canada to enter into the **License Agreement** on the terms and conditions prescribed herein.

4.5 **Breach**

If the Company

4.5.1 commits a misrepresentation, omission, concealment or incorrect statement of a material fact in the negotiations leading to the **License Agreement** in general or leading to or in the business plan in particular; or

4.5.2 breaches any representations or statements in the business plan,

then such failure is a material breach of the **License Agreement** which provides Canada with the discretionary election either to:

4.5.3 rescind the **License Agreement** and seek damages; or

4.5.4 maintain the **License Agreement** and seek damages alone.

4.6 **Commercially Reasonable Efforts to Commercialize**

As an inducement to Canada to enter into the **License Agreement**, during the term (or the renewal) of the **License Agreement**, the Company shall:

4.6.1 use commercially reasonable efforts to **Commercialize**;

4.6.2 use commercially reasonable efforts to create and satisfy demand for the **Licensed Rights**; and

4.6.3 not do, or assist anyone to do, anything inimical to the **Commercialization**.

Payment of fees and royalties under Article 5 (Fees & Royalties) does not relieve the Company of its obligation under paragraph 4.6 (Commercially Reasonable Efforts to Commercialize).

4.7 **Shelving a Fundamental Breach**

Any "parking", "shelving" or other activity or inactivity concerning the **Licensed Rights** whereby the Company is not using its commercially reasonable efforts to diligently and aggressively **Commercialize** the **Licensed Rights** in the **Territory**, is a fundamental breach of the **License Agreement**.

4.8 **Research Support Collaboration**

In carrying out basic research and development activities concerning the **Licensed Rights** and **VHF** vaccine during the term of this **License Agreement**, and any renewal thereof, the Company shall make good faith efforts to collaborate with Canada on [*] of such activities, under collaborative research agreements containing commercially reasonable terms and conditions as agreed to by the **Parties** at that time. Any payments made by the Company pursuant to such collaborations shall not diminish or affect the Company's obligation to pay fees and royalties under Article 5 (Fee and Royalties).

5.0 FEES AND ROYALTIES

5.1 **Fees**

The Company shall pay to Canada the following non-refundable lump sums:

5.1.1 PATENT FEES
[*], payable within thirty (30) calendar days of the **Execution Date**, as a reimbursement of **Patent** costs incurred by Canada to date;

5.1.2 SIGNING FEE
[*], payable upon signing, as a non-creditable and non-refundable signing fee in consideration of the execution of the **License Agreement**;

5.1.3 MILESTONE FEES [*] lump sum payable on the earlier of [*] or [*] years of the **Execution Date**, whichever comes first;

5.1.4 MILESTONE FEES [*] lump sum payable on the earlier of [*] or [*] years of the **Execution Date**, whichever comes first;

5.1.5 MILESTONE FEES [*] lump sum payable on the earlier of [*] or [*] years of the **Execution Date**, whichever comes first;

5.1.6 MILEPOST FEES [*] lump sum payable on the earlier of [*] or [*] of the **Execution Date**, whichever comes first.

5.2 **Royalty Percentage Rate**

The Company shall pay to Canada a royalty rate of [*] of the **Sales Price of Licensed Products** sold by the Company, its **Affiliate(s)** or sublicensees.

5.2.1 The royalty rate shall be lowered to [*] if: a) an additional technology is required to **Commercialize**; and b) the additional technology is actually licensed by the Company from a third party and the latter actually charges royalties to the

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Company for such a license (as shown by documentation sufficient to establish the requirement and the actual license).

5.2.2 The rate shall be lowered to [*] if: a) two (2) or more additional technologies are required to **Commercialize**; and b) the additional technologies are actually licensed by the Company from one or more third parties and the latter actually charge royalties to the Company for such a license (as shown by documentation sufficient to establish the requirement and the actual license).

5.3 **Minimum Royalty**

Notwithstanding any other provision of the **License Agreement**, the Company shall pay to Canada a minimum annual royalty of [*], payable on or before January during each year of the **License Agreement**. Such amounts paid shall be creditable against royalties owed under clause 5.2 (Royalty Percentage Rate) and sub-license payments owed under clause 5.4 (Sub-Licensing Consideration) in the same year.

5.4 **Sub-Licensing Consideration**

The Company shall pay to Canada [*] paid by the **Affiliates** and the sublicensees to the Company. Such payments shall be over and above the royalty rate paragraph 5.2 (Royalty Percentage Rate) (whether or not such consideration was directly, indirectly or derivatively paid or provided) including without limitation any equity.

5.5 **Sub-Licensee's Fees**

5.5.1 COLLECTION AND ENFORCEMENT BY THE COMPANY

The Company shall ensure that royalties payable to Canada from **Affiliates** and sub-licensees shall be remitted directly to the Receiver General for Canada, at the address provided in Article 20.1 (Notice). The Company shall take any necessary actions (at the Company's own cost) to collect, enforce and remit royalties or other consideration owing to Canada by the **Affiliates** and sub-licensees.

5.5.2 SUB-LICENSEE'S ARREARS PAID BY THE COMPANY

If an **Affiliate** or sub-licensee has royalties or other consideration owing to Canada under a sub-license for a period in excess of thirty (30) days, then the Company shall pay to Canada that amount owing within the next fourteen (14) days immediately following the aforementioned thirty (30) days.

5.6 **Taxes**

The Company shall pay **Taxes** at the applicable prevailing rates exigible on the Company's activities under the **License Agreement**, including without limitation **Commercialization** or on the payment of royalties, including any withholding taxes that in the first instance are levied against Canada

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5.7 **Payment to Canada**

Unless the **License Agreement** expressly provides otherwise, the Company shall pay any and all monies and consideration owing to Canada as follows:

5.7.1 TIME & MODE

quarterly, by cheque or money order, commencing on December 31, 2010 and thereafter on March 31, June 30, September 30 and December 31 of each year of this **License Agreement**;

5.7.2 CURRENCY & ADDRESS

except for royalties generated from **Commercialization** within Canada, cheques for the payment of royalties shall be in U.S. funds (at the conversion rate stated in the Wall Street Journal on the day prior to the date payment is due) and made payable to the "Receiver General for Canada". The cheque(s) shall be sent to

Director, Intellectual Property Management & Business Development
Public Health Agency of Canada
1015 Arlington Street, Suite 2420
Winnipeg, Manitoba, Canada
R3E 3R2;

5.7.3 ACCOMPANYING DOCUMENTATION

each cheque shall be accompanied by a statement bearing the name / identification of this **License Agreement** and the **Licensed Rights**, and showing the period covered, the total sales, per country sales, the per country royalty applicable and the total royalty paid or consideration paid, as applicable.

5.8 Payments to Canada after Termination

The Company shall pay to Canada any consideration due and payable under the **License Agreement**, whether incurred before termination or after, in accordance with Article 15 (Termination).

5.9 Payment after Expiry of Patents

The Company shall continue paying the amounts as prescribed in this Article, notwithstanding any impeachment proceedings, or the expiry, expungement or other nullification of the **Patents**.

5.10 No Set-off

Notwithstanding any other provision of the **License Agreement**, any consideration payable to Canada by the Company under the **License Agreement** is unconditional and

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non-cancelable. Further, the Company shall not have the right of set-off, deduct or counter-claim against any such consideration.

5.11 Accounting Approach

5.11.1 GAAP

The Company shall use GAAP in the calculation of consideration owing to Canada.

5.11.2 ACCRUAL

Royalties accrue on receipt of payment by the Company (or **Affiliates** or the sub-licensees) for the **Licensed Rights**.

5.11.3 INTEREST OF OVERDUE ACCOUNTS

In the event the Company fails to make any payment under the **License Agreement** when due and payable, then interest on any unpaid amount shall accrue at a rate of four (4)% above the base rate of the Bank of Montreal, Toronto, from time to time in force during the period of non-payment.

5.11.4 OTHER BASIS FOR PAYMENTS

If the Company receives any lump sum or other payments, royalties (including royalty payments received from third parties), or any other income or consideration for, or in respect of the **Commercialization** of the **Licensed Rights**, then the Company shall include such additional income in calculating the **Sales Price**.

6.0 RECORDS AND AUDIT

6.1 Records Maintenance

The Company shall keep true and accurate records and maintain such records relating to **Commercialization** and all other obligations of the Company under the **License Agreement** during the term of the **License Agreement** and for ten (10) years following the termination or expiration of the **License Agreement**.

6.2 Record Type

For greater clarity and without limiting the generality of the foregoing, records cited in paragraph 6.1 (Records) shall comprehensively address:

6.2.1 financial, business, manufacturing and technical support, including without limitation sales reports, inventory reports, subcontractor and distributor agreements, tax returns, catalogues, price lists, shipping records, invoice registers, invoices, financial statements and ledgers; and

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6.2.2 quality standards and monitoring reports and records.

6.3 Records, Access to those held by Off Site Professionals

The Company irrevocably authorizes its independent accountants, KPMG LLP, to provide to Canada's independent accountants any information it may have with respect to the **Commercialization**.

6.4 Audit Document Right

Upon the written request of Canada and with at least fifteen (15) calendar days prior notice, the Company shall permit an independent accountant, retained by Canada, to inspect all relevant records (whether held internally by the Company or at the offices of professional advisors or elsewhere) in order to ascertain the accuracy of such royalties, reports and **Commercialization** efforts. Such inspections shall be during business hours and in a manner that does not unduly disrupt the Company's business. The Company shall allow the accountant to make any necessary copies of the records that the independent accountant deems fit.

6.5 Audit Interview Right

In addition to the rights in paragraph 6.4, upon the written request of Canada, the Company shall allow the independent accountant to interview key personnel of the Company. The independent accountant, in its unfettered discretion, shall determine who the key personnel are for the purposes of the interview. The Company acknowledges that the independent accountant may have more than one interview with key personnel

6.6 Audit Confidentiality

The independent accountants retained by Canada shall inform Canada whether the Company has complied with its obligations under the **License Agreement**, including without limitation whether all royalties and consideration due and payable were paid as prescribed to Canada and marketing efforts and any inaccuracies in such payments. Subject to the information contained in the foregoing audit reports, the independent accountants shall neither reveal to Canada any of the Company's internal documentation or records, nor disclose any notes or copies of the Company's records made by the independent accountants, excluding anything necessary for the report.

6.7 Duration

The auditing and verification provisions herein shall continue for 10 years following the expiry or termination of this **License Agreement**.

6.8 No Waiver

Any royalty payment or report accepted by Canada shall not constitute a waiver by or estoppel against Canada concerning the contractual right to audit the Company, and Canada shall continue to have the right to audit as prescribed in the **License Agreement**.

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Furthermore, an audit shall not preclude Canada from conducting subsequent audit or audits.

6.9 Discrepancy Percentage

With respect to the earned royalties (paragraph 5.2, Royalty Rate, paragraph 5.4. Sub-License Fees) in the event of any discrepancy uncovered by the audit, in excess of five percent (5.0%) of the amounts paid during the audited period, the Company shall pay forthwith to Canada both the discrepancy and the cost of the audit. Overpayments shall be credited against the next payment due by the Company to Canada.

6.10 Breach of Records Audit Article Material

The record and audit requirements are a material term of the **License Agreement**.

7.0 REPORTS & QUALITY CONTROL

7.1 Report - Commercialization & Marketing

The Company shall, on or before the 45th day following each calendar quarter, during the term hereof and any renewal, submit to Canada written reports as to the Company's activities with respect to the exercise of **Licensed Rights** during the preceding twelve (12) months. Such reports shall contain:

- 7.1.1 a description of the steps taken by the Company to develop and **Commercialize** and sub-license;
- 7.1.2 a description of the marketing conditions for the products or processes created by the exercise of the **Licensed Rights**; and
- 7.1.3 a report on the production, use and sales of the products or processes created by the exercise of the **Licensed Rights**.

7.2 Report - Officer's Certificate

The report from the Company shall also contain a certificate from either the CEO or CFO of the Company attesting to the fact that the Company has been using commercially reasonable efforts to develop and **Commercialize** the products or processes created by the exercise of the **Licensed Rights** and that **Commercialization** is a material and active element of the Company's business.

7.3 Report - Audited Statement & Remittances

In addition to the requirements of paragraphs 7.1 (Report Contents General) and paragraph 7.2 (Report - Officer's Certificate), the report from the Company to Canada shall also contain an audited statement, which includes, without limitation:

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- 7.3.1 an audited statement, including the amount of the products or processes created by the exercise of **Licensed Rights** sold by the Company and the amount of royalties or other consideration payable;

- 7.3.2 the names and addresses of all *Affiliates* and sub-licensees to whom the *Licensed Rights* has been sub-licensed;
- 7.3.3 a full account of all revenues generated by such *Affiliates* and sub-licenses, including the amount of products or processes created by the exercise of *Licensed Rights* sold;
- 7.3.4 a calculation of the amount due to Canada for the royalties and consideration as stipulated herein as required under paragraphs 2.5 (Sublicensing Conditions) and paragraph 2.6 (Sub-licensee Consideration); and
- 7.3.5 subject to paragraph 5.7 (Payment to Canada) any remittances then payable to Canada, payable to the Receiver General for Canada, of the amount of royalties or other consideration so payable.

7.4 Report— Quality Control

In addition to the foregoing, the report shall also contain internal audit results, conducted quarterly, showing the quality standards of the products or processes created by the exercise of the *Licensed Rights* at all production sites and at the major sale or distribution sites.

7.5 Quality Control Obligations

The Company shall comply with all quality requirements for the products or processes created by the exercise of the *Licensed Rights* that are prescribed by:

- 7.5.1 Canada from time to time in writing; and
- 7.5.2 any regulatory or statutory authority.

7.6 Quality Control Spot Audits by Canada

The Company shall allow Canada to conduct spot audits of the Company production and sales sites during operating hours anywhere in the *Territory* to ensure compliance with the prescribed quality standards.

7.7 Quality Control Spot Audits on behalf of Canada

Canada may ask the Company to conduct spot audits of the Company production and sales sites anywhere in the *Territory* and to disclose those results to Canada within 15 days of each audit.

7.8 Annual Report

The Company shall, on or before the 31st day of May of each calendar year, during the term hereof and any renewal, submit to Canada a copy of:

- 7.8.1 the Company's certified financial statements and evidence of renewal of the Company's insurance policy under section 13 of the License Agreement;
- 7.8.2 the Company's annual reports to shareholders; and
- 7.8.3 material revisions to the Company's business plan.

7.9 Annual Face-To-Face Meeting

The Company shall, on the 121st day of each calendar year, during the term of the *License Agreement* and any renewal, meet face-to-face with Canada to provide a progress report on the activities carried out by the Company under the *License Agreement*.

7.10 Material terms

The reporting and quality requirements and audit rights are a material term of the *License Agreement*.

8.0 OWNERSHIP OF TECHNOLOGY / IMPROVEMENTS

8.1 Canada Owns Licensed Rights

The Company agrees and is estopped from alleging otherwise that:

- 8.1.1 the *Licensed Rights* are vested in and are the sole property of Canada;
 - 8.1.2 ownership and all rights related to, connected with, or arising out of the foregoing, including, without limitation:
 - 8.1.2.2 *Patents, Intellectual Property, Confidential Information*, copyright, the right to produce, publish or cause to be produced, and all published information material and documents;
 - 8.1.2.3 the right to issue a license;
- are vested in and are the sole property of Canada, and

8.1.3 the Company shall have no rights to the foregoing except as may be expressly granted under this **License Agreement**, and the Company shall not apply for any proprietary or other right and shall not divulge or disclose, without the prior written consent of Canada, any information, material or documents concerning the foregoing or make available in any way or use the **Licensed Rights**, except as expressly provided in the **License Agreement**.

8.2 **No Impeachment**

The Company shall neither impeach, contest or otherwise attack, directly or indirectly, the validity, enforceability or ownership of the **Patents** or any **Intellectual Property** rights held by Canada, or Canada's right, title and interest in and to the **Licensed Rights** nor assist, counsel or procure any third party to do the same.

8.3 **Inimical Use of Confidential Information**

The Company shall not use any **Confidential Information** obtained from Canada in the negotiation of the **License Agreement**, under due diligence searches or otherwise related to this **License Agreement**, in any manner that either violates the Company's rights and obligations under the **License Agreement** or is inimical to the interests of Canada.

8.4 **Improvements - Ownership**

Unless expressly agreed to otherwise in writing by the **Parties**, the ownership of any **Improvement** made by or on behalf of a **Party** shall immediately, after creation, vest exclusively in that **Party**.

8.5 **Company Improvements - Disclosure**

The Company shall disclose to Canada forthwith all **Improvements**, innovations and discoveries developed or created by or on behalf of the Company, solely or jointly with others (including **Affiliates** and sub-licensees), which related to the **Licensed Rights**, together with any **Intellectual Property** rights residing therein.

8.6 **Company Improvements — License to Canada**

The Company hereby grants to Canada a personal, non-transferable, non-exclusive, worldwide, perpetual, irrevocable, royalty-free and fully paid-up license for the **Improvements** (including data and reports related thereto), made by or on behalf of the Company under paragraph 8.4 (Improvements — Ownership) and disclosed to Canada under paragraph 8.5 (improvements — Disclosure) for the purposes set out in paragraph 2.2 (Carve Out). Further, Canada may sub-license such **Improvements** for the purposes of carrying out the purposes set out in paragraph 2.2 (Carve Out).

Termination of the **License Agreement** shall not terminate the foregoing license to Canada or any subsisting sub-licenses.

9.0 DISCLAIMERS

9.1 **Estoppel Statement/Disclaimer of Express / Implied Warranties**

The Company acknowledges that there is some question as to the integrity of ownership of the **Licensed Rights** and **Patents** and the Company accepts those risks.

The **Licensed Rights** and **Patents** are provided to the Company on an "as is" basis. Canada makes no warranties, representations or conditions, express or implied, of any nature, and Canada disclaims all warranties, representations or conditions, for the **Licensed Rights**, the **Patents**, the **Intellectual Property** or the **Confidential Information** including, without limitation:

- 9.1.1 merchantability;
- 9.1.2 quality (either as discussed or with respect to a sample / model);
- 9.1.3 fitness for any or a particular purpose;
- 9.1.4 commercial utility or practical purpose;
- 9.1.5 susceptibility of yielding valuable results or results are free of defects or otherwise harmless;
- 9.1.6 latent or other defects;
- 9.1.7 infringement or non-infringement of Patents or other third party rights;
- 9.1.8 conformity with the laws of any jurisdictions; or
- 9.1.9 fitness for the Company's corporate objectives (whether or not expressly or implicitly communicated to Canada).

For greater certainty, no information or advice given by Canada shall create a warranty or representation or condition other than as expressly stated in the **License Agreement**. The Company hereby accepts the **Licensed Rights** and the **Patents** "as is", with all faults, and the entire risk as to satisfactory quality, performance, accuracy and effort is with the Company. In no event shall Canada be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services, loss of use, data or profits, or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the exercise of the **Licensed Rights** by the Company, its **Affiliates** or sub-licensees, even if advised of the possibility of such damage.

9.2 **Disclaimer of Statutorily Implied Warranties**

No legal or equitable warranties or conditions implied by law or convention under any domestic, foreign or international legal regime, or from a course of dealing or usage of trade, shall apply to the **License Agreement**. The Company acknowledges this disclaimer and is estopped from relying on any such representations, warranties or conditions against Canada.

9.3 **Confidential Information Without Warranty / No Reliance**

The Company shall not rely in any way on the quality, accuracy or completeness of any **Confidential Information** provided by Canada under the **License Agreement**. Any use of such **Confidential Information** shall be at the Company's sole risk and expense. Any **Confidential Information** provided to the Company by Canada is without any warranty or guarantee or representation or warranty of any kind whatsoever other than as expressly provided herein.

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9.4 **No Liability to Canada from Exercise of Rights**

The Company undertakes to use the **Licensed Rights** and apply **Confidential Information** of Canada entirely at its own risk and under its own responsibility, and that the Company will have no recourse against Canada with respect to any consequences of such application.

9.5 **Third Party Representations**

The Company shall not represent to any **Affiliate** or sub-licensee the existence of any warranty or condition concerning the **Licensed Rights**.

9.6 **Disclosure & Due Diligence**

The Company acknowledges that:

- 9.6.1 Canada has made full and frank disclosure of all facts the Company deemed relevant before executing the **License Agreement**;
- 9.6.2 The Company has conducted a due diligence search of all matters relevant to the **Licensed Rights**, the **Patents** and the **License Agreement**;
- 9.6.3 Canada has made all best efforts to identify the significant characteristics of the **Licensed Rights** and that Canada makes no representation that all the characteristics both favorable and unfavorable have been identified; and
- 9.6.4 Canada is either under no duty to warn the Company or the Company unconditionally waives any such duty, about the **Licensed Rights** or **Commercialization**.

10.0 **PATENT PROTECTION & REGULATORY REQUIREMENTS**

10.1 **Patent Costs**

The Company shall pay all costs related to and maintaining **Patents** (and shall reimburse Canada for any of these costs that Canada may pay during any term of the **License Agreement**), as they are incurred, and within thirty (30) days of being invoiced for such costs.

10.2 **Right to Patent**

Nothing in the **License Agreement** shall limit or restrict Canada from seeking to patent **Improvements** made by Canada.

10.3 **The Company Shall Obtain Regulatory Permissions**

The Company shall use commercially reasonable efforts to obtain any authorizations, permits, certificates or other regulatory permissions which may be required in order for the Company to legally carry out all of its activities under the **License Agreement**,

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including but not limited to **Commercialization**, at the Company's sole cost and expense without right of set-off.

10.4 **Her Majesty Not Obligated**

Nothing in the **License Agreement** shall obligate any emanation of Her Majesty the Queen in Right of Canada to grant any required authorizations, permits, certificates or other regulatory permissions. Conversely, there is no implication by the execution of the **License Agreement** that the Company will be granted any required authorization, permits, certificates or other regulatory permissions necessary for the effective Commercialization of the **Licensed Rights**.

11.0 **CONFIDENTIALITY / FIDUCIARY OBLIGATIONS & EQUITABLE REMEDIES**

11.1 **Existing Confidentiality Agreements**

The **Confidentiality Agreements** entered into by the Parties on May 1, 2007, and November 1, 2008, respectively, shall end on the **Execution Date** of the **License Agreement**. However, all rights and obligations of the Parties under the **Confidentiality Agreements** that expressly or by their nature survive termination of those agreements shall continue in full force and effect until they expressly or by their nature expire.

11.2 Confidentiality Obligations

Commencing on the *Execution Date* of this *License Agreement*, *Confidential Information* disclosed by one *Party* to the other *Party* under this *License Agreement* shall be:

- 11.2.1 held in confidence and in trust by the receiving *Party*;
- 11.2.2 used by the receiving *Party* exclusively for the purposes authorized under the *License Agreement* and for no other purpose whatsoever;
- 11.2.3 safeguarded by the receiving *Party* using all reasonable measures and taking such action as may be appropriate to prevent the unauthorized access, use or disclosure of the *Confidential Information*; and
- 11.2.4 not disclosed to third parties without the prior written consent of the disclosing *Party*.

11.3 No Waiver of Privilege

Each *Party* acknowledges that the *Confidential Information* of the disclosing *Party* is the property of the disclosing *Party* or a third party and that none of the latter intend to or do waive any rights, title or privilege they may have in respect of any of the *Confidential Information*.

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11.4 Common Law Duty of Confidentiality

Nothing in this *License Agreement* derogates, displaces or otherwise diminishes the common law or equitable duty of confidentiality vested in the receiving *Party* concerning the *Confidential Information*.

11.5 Confidentiality Exclusions

Article 11.2 (Confidentiality Obligations) does not apply to information which, even if it may be marked “confidential”, is not really confidential, in that

- 11.5.1 IN PUBLIC DOMAIN - the information was legally and legitimately in the public domain through no act or omission of the receiving *Party* at the time of disclosure by the receiving *Party*;
- 11.5.2 PUBLISHED - the information was legally and legitimately published or otherwise becomes part of the public domain through no act or omission of the receiving *Party* at the time of disclosure by the receiving *Party*;
- 11.5.3 ALREADY KNOWN TO THE RECEIVING PARTY - the information was already in the possession of the receiving *Party* at the time of disclosure and was not acquired by the receiving *Party*, directly or indirectly, from the disclosing *Party* (as shown by documentation sufficient to establish the timing of such possession), and the receiving *Party* is free to disclose the information to others without breaching any contractual or trust obligations or common law duties;
- 11.5.4 THIRD PARTY DISCLOSES - the information becomes available from an outside source who has a lawful and legitimate right to disclose the information to others, and the receiving *Party* is free to disclose the information to others without breaching any contractual or trust obligations or common law duties;
- 11.5.5 INDEPENDENTLY DEVELOPED - the information was independently developed by the receiving *Party* without any of the *Confidential Information* being reviewed or accessed by the receiving *Party* (as shown by documentation sufficient to establish the timing of such development); or
- 11.5.6 JUDICIAL/ADMINISTRATIVE ORDER - the information was released due to a compulsory order under a judicial process or under a compulsory regulatory (including securities) requirement, none of which was invited by, or consented to, by the receiving *Party* and the receiving *Party* made all reasonable efforts to secure a court order to limit production, use and disclosure of the information to the narrowest class practical under the circumstances.

11.6 Secure Location

Each *Party* shall keep the *Confidential Information* of the other *Party* in a secure location accessible only to its employees specifically authorized to have access pursuant to this *License Agreement*. Each *Party* shall ensure that its employees complies with the

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terms and conditions of this *License Agreement* and shall enter into agreements with such employees if necessary to give effect to this obligation.

11.7 Return of Confidential Information

If this *License Agreement* expires or is terminated, the *Parties* shall return to each other the *Confidential Information* disclosed to them under this *License Agreement* and any notes, reports and other materials prepared by the receiving *Party* from the disclosing *Party*'s *Confidential Information* except that Canada shall be entitled to retain one copy of such records for the purposes of meeting Canada's obligations under the federal laws of Canada and for the purposes of paragraph 8.6 (Improvements - License to Canada).

11.8 Confidential Information is Proprietary

The **Confidential Information** of each **Party** is and shall remain the exclusive property of that **Party** or third parties and the receiving **Party** shall not claim any rights, title, interest or ownership in the **Confidential Information**. The receiving **Party** shall not contest any such rights, title, interest or ownership.

11.9 **Legal and Equitable Remedies**

Should a **Party** commit or threaten to commit a serious or material breach of its confidentiality or fiduciary obligations under this Article 11, then the other **Party** may pursue any and all legal and equitable remedies, including without limitation, injunctive relief, accounting for profits, redistribution, damages, constructive trust and disgorgement. Disgorgement means, for the purposes of the **License Agreement**, the ejection of all benefits gained by the receiving **Party**, traceable to the material breach, notwithstanding that such disgorgement may exceed the damages directly suffered by the disclosing **Party** or deprivation suffered by the disclosing **Party** for such breach.

11.10 **No Hiring of Canada's Employees**

The Company shall not:

- 11.10.1 solicit, hire, retain or secure;
- 11.10.2 directly or indirectly, including without limitation, the use of consultants, **Affiliates** or third parties;
- 11.10.3 any of the agents, servants or employees of Canada;
- 11.10.4 which agents, servants or employees are employed or retained in connection with, or whose responsibilities relate in whole or in part, to the **Confidential Information**, the **Licensed Rights** or the **Patents**; or helped produce or create the **Confidential Information**, the **Licensed Rights** or the **Patents**;

to accept employment with the Company of any of its **Affiliates**, unless

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11.10.5 Canada grants in advance its written permission to such a solicitation or the employment of such a person; or

11.10.6 [*] have elapsed from the **Execution Date**.

11.11 **Exemption**

The prohibition in paragraph 11.10 (No Hiring of Canada's Employees) does not apply to general solicitations of employment issued by the Company and any hiring resulting from such solicitations that are:

- 11.11.1 not directed towards the employees of Canada; and
- 11.11.2 do not involve the **Confidential Information**, the **Licensed Rights** or the **Patents**.

11.12 **Contact Only Under License Agreement**

The **Parties** shall have no discussions, correspondence or other contact with the other **Party**, its licensees, confidants or any person concerning the **License Agreement**, except through the designated representative of the other **Party** or any delegates identified in writing by the designated representative from time to time.

11.13 **Terms Of Agreement Confidential But Not Existence of Agreement**

The **Parties** agree that terms of this **License Agreement** are confidential but not its existence. The terms of this **License Agreement** shall not be disclosed by a **Party** unless disclosure is required by law or if the other **Party** agrees to the disclosure in writing prior to disclosure.

12.0 **CORPORATE REPRESENTATIONS & WARRANTIES**

12.1 **The Company Incorporated & Authorized 8 Bound**

The Company represents and warrants to Canada that as of the **Execution Date**:

12.1.1 ABILITY

it can **Commercialize**, and the Company has or will have the necessary access to funds, resources, knowledge, facilities and personnel to perform its obligations under the **License Agreement**, including to use commercially reasonable efforts to **Commercialize**;

12.1.2 AUTHORIZATION

it is authorized and has the corporate power and authority to negotiate, execute, comply with and satisfy its obligations, without qualification, under the **License Agreement**;

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12.1.3 INCORPORATION JURISDICTION

it has been duly incorporated and organized under the laws of the state of Delaware and is validly existing under the laws of Iowa;

12.1.4 EXTRA-PROVINCIAL REGISTRATION

it is duly qualified, licensed or registered to carry on business in the Province or State of Delaware.

12.1.5 ENFORCEABLE

it is bound by the **License Agreement**, upon execution, and the **License Agreement** constitutes a legal, valid and binding obligation on the Company, enforceable against the Company in accordance with the terms of the **License Agreement**, except as those terms may be limited by applicable bankruptcy laws and general principles of equity,

12.1.6 LITIGATION

it has no knowledge of any legal proceeding or order pending against or, to the knowledge of the Company, threatened against or affecting, the Company or any of its properties or otherwise that could adversely affect or restrict the ability of the Company to consummate fully the transactions contemplated by this **License Agreement** (including without limitation the **Commercialization**) or that in any manner draws into question the validity of this **License Agreement**;

12.1.7 VERACITY OF STATEMENTS

no representation or warranty by the Company contained in this **License Agreement** and no statement contained in any certificate, schedule or other instrument furnished to Canada pursuant hereto or in connection with the transactions contemplated hereby, contains any untrue statement of a material fact or omits to state a material fact;

12.1.8 INCONSISTENT AGREEMENTS / OBLIGATIONS

it has not given any understanding, express or implied, to any third party which would:

12.1.8.2 preclude the Company from fulfilling its obligations under the **License Agreement**; or

12.1.8.3 cause the Company to breach an agreement with a third party;

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12.1.9 NO MARCH IN RIGHTS

it is not subject any "march in" or third party rights, (contractual or statutory, contingent or vested) which would give that third party any rights to the **Licensed Rights** not otherwise explicitly described in the **License Agreement**; and

12.1.10 NO BREACH OF THIRD PARTY AGREEMENTS

its execution of the **License Agreement** does not contravene its constituent documents or any law, regulation or official directive or any of its obligations or undertakings by which it or any of its assets are bound or cause a limitation on its powers or the powers of its directors to be exceeded.

12.2 **Canada Authorized**

Canada represents and warrants to the Company as of the **Execution Date**:

12.2.1 AUTHORIZATION

Canada has the power and authority to negotiate, execute and comply with the **License Agreement**, subject to all applicable laws and the royal prerogative; and

12.2.1.2 no further action is required by or in respect of any governmental or regulatory authority; and

12.2.1.3 the **License Agreement** is legal, binding and enforceable in accordance with its terms.

13.0 INDEMNITY, INSURANCE AND LIABILITY ALLOCATION & CAPS

13.1 **The Company's Indemnification**

The Company shall;

13.1.1 indemnify; and

13.1.2 save harmless;

Canada (and her employees, servants and agents),

- 13.1.3 from and against all claims, demands, losses, penalties, damages, costs, (including reasonable solicitor and own-client costs and expert witness costs), actions, suits or other proceedings whatsoever, whether groundless or otherwise,
- 13.1.4 brought or prosecuted in any manner which heretofore or hereafter may be made by a third party against Canada or her employees, servants and agents;
- 13.1.5 however and whenever arising out of, relating to, occasioned by or attributed to,

- a) any acts or conduct (including, without limitation, omissions, misrepresentations, errors and offences) of the Company, its employees, servants, agents, advisors, sub-licensees or *Affiliates* (whether by reason of negligence or otherwise) in the performance by the Company of the provisions of the *License Agreement* or any activity undertaken or purported to be undertaken under the authority or pursuant to the terms of the *License Agreement*, including without limitation, exercise of the *Licensed Rights* and *Commercialization*;
- b) any infringement or alleged infringement by the *Patents*, the *Licensed Rights* or *Licensed Products* of proprietary rights of any including, without limitation, patent, trade-mark, copyright or trade secret rights;
- c) any claim the *Patents*, the *Licensed Rights* or the *Licensed Products* or any aspect or use thereof by the Company infringes or constitutes misappropriation of the intellectual property rights of any third party; and
- d) any claim or demand against the *Patents*, the *Licensed Rights*, the *Licensed Products* or the interest of Canada or the Company therein.

Further, the Company shall not third party Canada for any such claims, actions, suits or other proceedings taken solely against the Company and the Company hereby expressly waives any rights it has against Canada for claims of infringement.

13.2 *Indemnity Separate / Continuing*

The foregoing indemnity is a continuing obligation, separate and independent from the other obligations of the Company and survives termination of, expiration of, or the acceptance of repudiation of the *License Agreement*. It is not necessary for Canada to incur expense or make payment before enforcing a right of indemnity conferred hereunder.

13.3 *Insurance*

The Company shall ensure that both the Company and each of its *Affiliates* and sub-licensees shall obtain and maintain, throughout the term of the *License Agreement* (and any renewal thereof) or duration of the sub-licenses (as the case may be), comprehensive general liability insurance for any and all claims, actions, liabilities and expenses resulting from the *Commercialization* of the *License Rights*.

13.3.1 INSURANCE COMPANY

The insurance policy shall be obtained from a qualified insurance company licensed to do business in the applicable jurisdictions.

13.3.2 NAMED INSURED

The insurance policy shall name Her Majesty the Queen in Right of Canada and Her employees, servants and agents as "additional insureds".

13.3.3 LIMITS

As of the *Execution Date*, the insurance policy shall include commercial general liability insurance, and shall have monetary limits in the amount not less than one million dollars (\$1,000,000) for each single occurrence or claim. Following the submission of an Investigational New Drug covering a Licensed Product and prior to the beginning of a Phase 1 Clinical Study, the insurance policy shall include commercial general liability insurance, that includes products liability insurance, and shall have monetary limits in an amount not less than five million dollars (\$5,000,000) for each single occurrence or claim. The minimum amount of insurance coverage required under this *License Agreement* shall not be construed as a limit of liability.

13.3.4 TERMINATION NOTICE

The insurance policy shall provide for thirty (30) business days written notice by the insurer to the Company and Canada by registered or certified mail in the event of any modification, cancellation or termination of the insurance policy.

13.3.5 COPY

The Company shall provide Canada a copy of the insurance policy not later than 30 days after execution of the *License Agreement*, and thereafter upon the written request of Canada. This obligation shall apply each time the monetary limits are increased pursuant to clause 13.3.3, in which case the copy shall be provided not later than 30 days after the monetary limits in the insurance policy are increased. This obligation shall survive termination or expiration of the *License Agreement*.

13.3.6 INSURANCE UNAVAILABLE

If insurance required to meet the monetary limits in clause 13.3.3 is unavailable, the **Parties** shall review the situation, and Canada may elect to either allow the Company to obtain the insurance that is available, or alternatively terminate the **License Agreement**.

13.4 **Canada's Liability Cap**

Canada's liability for:

13.4.1 breach of the representations, conditions or warranties contained herein or any of the other provisions of the **License Agreement** or any other breach giving rise to liability, including a breach of a condition or fundamental term or fundamental breach or breaches; or

13.4.2 in any other way arising out of or related to the **License Agreement**; or

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13.4.3 for any cause of action whatsoever and regardless of the form of action (including breach of contract, trust, strict liability, tort [*], or any other legal or equitable theory);

shall be limited to the Company's actual direct (immediate and foreseeable at the time of negotiation to both **Parties**), provable damages in an amount not to exceed in the aggregate a sum equal to or less than the net consideration received by Canada from the Company under paragraph 5.2 (Royalty Percentage Rate) for the time period commencing from the **Execution Date** up to and including the date of judicial judgment or arbitrator's decision.

13.5 **Excluded Heads of Damage**

Canada shall not be liable to the Company, its employees, servants, agents, successors, assigns, **Affiliates** or sub-licensees for damages in respect of:

13.5.1 incidental, indirect, special, punitive, exemplary damages;

13.5.2 any economic loss, consequential damages, relational loss, including but not limited to lost business revenue, lost profits, business interruption, failure to realize expected savings, loss of data, loss of business opportunity suffered by the Company or any claim whatsoever and whenever made against the Company by any other party;

(whether grounded in tort [*], strict liability, contract, trust or otherwise,) even if:

13.5.3 Canada was advised of the possibility of such damages, or

13.5.4 the damages encompassed by subparagraphs 13.5.1 and 13.5.2 were foreseeable by Canada, or

13.5.5 such damages resulted from a fundamental breach of the **License Agreement**.

Further, Canada shall have no duty to warn the Company for matters arising directly or indirectly under the **License Agreement**.

13.6 **No Actions Against Employees**

The Company acknowledges and estopped from and waives any rights the Company might have to commence and prosecute any action whatsoever, regardless of form or grounds (including without limitation negligence, misrepresentation, fiduciary, deceit) against any of Canada's employees, servants, agents or officers, arising out of any

13.6.1 claimed breach of the **License Agreement**;

13.6.2 transactions under the **License Agreement**;

13.6.3 negotiations leading to the **License Agreement**; or

13.6.4 in any other way related to the **License Agreement**.

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For greater clarity, the Company's remedies for any breach of or **Dispute** under the **License Agreement**, lies only against Canada, and only within the aforementioned parameters prescribed by the **License Agreement**.

13.7 **Notifications**

Canada shall notify the Company of any claim that falls within the parameters of the respective indemnification obligations as soon as practical. In any case such notice shall be made forthwith upon notice that a claim may be prosecuted or a cause of action exists.

14.0 **INFRINGEMENT**

14.1 **Third Party Suit**

Subject to Article 13 (Indemnification), in the event of any threatened or actual suit against the Company in consequence of the exercise of any rights and licenses granted herein, the Company shall; promptly inform Canada and the **Parties** will Jointly decide on the steps to be taken in the circumstances. In any event, the Company will always have the sole right to defend itself as it determines against any suit or other action brought against the Company or its employees or agents.

14.2 **Infringement Uncovered**

Each **Party** will notify the other promptly in writing when any infringement of the **Licensed Rights** or **Patents** is uncovered or suspected.

14.3 **Company May Sue**

The Company shall have the right to enforce the **Patents** against any infringement or alleged infringement thereof, and shall at all times keep Canada informed as to the status thereof. Subject to Canada's prior written approval (which will not be unreasonably withheld), the Company may, at its own expense, institute suit against any such infringer or alleged infringer and prosecute such suit in a manner consistent with the terms and provisions hereof. Canada shall reasonably cooperate in any such litigation at the Company's expense, and the Company shall keep Canada apprised in a timely manner of all litigation activities. In any litigation under this article, the Company shall not have the right to settle or otherwise compromise Canada's position as a licensor or owner of the **Patents** without Canada's prior written consent.

14.4 **Distribution of Company's Recovery**

In the event of a recovery by the Company of punitive and non-punitive damages (net of legal fees and out of pocket costs of the action) under paragraph 14.3 for royalty-bearing products, the Company shall pay to Canada [*] of such recovery.

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14.5 **Canada May Sue**

If the Company elects not to enforce the **Patents** as to any infringement or alleged infringement thereof, then the Company shall so notify Canada in writing within one (1) month of receiving notice that an infringement exists, and Canada may, in its sole judgment and at its own expense, take steps to enforce the **Patents** against such infringement or alleged infringement and control, settle, and defend such suit in a manner consistent with the terms and provisions hereof, and recover for its own account any damages, awards or settlements resulting therefrom.

15.0 **TERMINATION**

15.1 **By Canada for Cause**

The **License Agreement**, at the option of Canada, without prejudice to any other rights in law of equity held by Canada (including any right of indemnity), may be terminated forthwith by Canada without compensation to the Company if:

15.1.1 **INSUFFICIENT EFFORTS**

The Company fails to use its commercially reasonable efforts to develop or **Commercialize** and does not cure such failure within ninety (90) days of written notice from Canada;

15.1.2 **NO PAYMENT**

The Company fails to make any payment owed to Canada under the **License Agreement** and does not make such payment within sixty (60) days of the due date;

15.1.3 **BREACH OF CONFIDENTIALITY**

The Company uses or discloses **Confidential Information** of Canada in a manner inconsistent with its obligations under the **License Agreement** or fails to safeguard the **Confidential Information** of Canada;

15.1.4 **BREACH OF BUSINESS PLAN**

The Company fails, neglects, refuses or is unable to comply with the business plan created and submitted under paragraph 4.1 (Business Plan);

15.1.5 **QUALITY CONTROL & AUDIT**

The Company refuses, neglects or fails to meet quality standards or allow access for quality audit purposes contrary to paragraph 7.0 (Reports & Quality Control) or provide or allow the audit of the reports and records as required under Article 6.0 (Records and Audit);

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15.1.6 **CEASES BUSINESS**

The Company ceases to actively carry on business;

15.1.7 **MULTIPLE BREACHES**

The Company breaches three or more provisions of the **License Agreement** within any consecutive twelve (12) month period, notwithstanding that such breaches were subsequently cured;

15.1.8 **CROSS-DEFAULT**

The Company breached a provision of another agreement with Canada that was executed with the Public Health Agency of Canada, and that breach occurred during the term of the **License Agreement**;

15.1.9 CRIMINAL CONVICTION

The Company was convicted of a criminal or regulatory offence, the nature of which directly or indirectly affects the ability of the Company to conduct itself hereunder or to **Commercialize** in an effective and timely manner, or otherwise prejudices **Commercialization**;

15.1.10 GENERAL BREACH

The Company commits or permits a breach of any of the other terms and conditions herein contained and does not remedy such breach within sixty (60) days after being required in writing to do so by Canada;

15.1.11 REPUDIATES

The Company expressly or implicitly repudiates the **License Agreement** by refusing or threatening to refuse to comply with any of the provisions of the **License Agreement**.

15.2 Automatic Termination

The **License Agreement** and all rights granted to the Company pursuant to the **License Agreement** shall immediately terminate and revert to Canada by operation of contract, without prejudice to any other rights in law of equity held by Canada (including any right of indemnity) and without compensation to the Company, effective the business day prior to the applicable triggering event, namely if:

15.2.1 ASSIGNMENT

The Company assigns the **License Agreement** without the prior written consent of Canada, contrary to the provisions of paragraph 18.2 (No Assignment Without Consent); or

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15.2.2 BANKRUPTCY

The Company becomes bankrupt or insolvent or otherwise

- 15.2.2.2 has a receiving or winding up order made or sought against it;
- 15.2.2.3 has a meeting proposed or convened, seeking or actually passing a resolution to appoint a trustee or official manager;
- 15.2.2.4 has a receiver, receiver-manager, liquidator, trustee in bankruptcy, custodian or any other officer with similar powers appointed for the Company or such an order is sought;
- 15.2.2.5 has any or all of its assets seized or otherwise attached for the benefit of creditors;
- 15.2.2.6 proposes or convenes a meeting to seek or passes a resolution for winding up;
- 15.2.2.7 takes the benefit of any statute, at the time in force, relating to bankrupt or insolvent debtors for the orderly payment of debts;
- 15.2.2.8 makes a general assignment for the benefit of creditors;
- 15.2.2.9 submits a proposal or arrangement under any debtor/creditor legislation;
- 15.2.2.10 is the subject of a petition or files an assignment under the Bankruptcy Act or any successor legislation; or
- 15.2.2.11 does or attempts anything analogous to the aforementioned events or having a substantially similar effect to any of the aforementioned events under the laws of any jurisdiction.

15.3 Termination Not A Penalty

The Company acknowledges, and is estopped from alleging otherwise, that the termination provisions in paragraph 15.2 do not constitute a penalty, and are otherwise fair, just and proportional given:

- 15.3.1 the nature of the **Parties**;
- 15.3.2 their respective mandates and corporate objectives;
- 15.3.3 the allocation of risks under the **License Agreement**;
- 15.3.4 the goals of the **Parties**;
- 15.3.5 nature of the **Licensed Rights**; and
- 15.3.6 the consequences to Canada if the Company commits the aforementioned breaches.

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15.4 Procedure

Termination shall be implemented by a notice effective as of the date slated therein, but termination shall be subject to paragraph 15.6 (The Company's Duties on Termination) and be without prejudice:

15.4.1 to the right of Canada to sue for and recover any royalties or other sums due Canada; and

15.4.2 to the remedy of either **Party** in respect of any previous breach of the **License Agreement**.

15.5 **Effect on Sub-licensees**

All sub-licenses, including those granted to **Affiliates**, shall terminate with the **License Agreement**.

15.6 **The Company's Duties on Termination or Expiration**

A) Upon termination of the **License Agreement** by Canada, the Company shall at its own cost:

15.6.1 return immediately to Canada all **Licensed Rights** and **Confidential Information** of Canada, including copies thereof;

15.6.2 certify in writing to Canada within thirty (30) days of termination, that to the best of the Company's knowledge, all of the **Confidential Information** (including copies) of Canada has been returned;

15.6.3 deliver a detailed statement to Canada of the inventory of the products made from the exercise of the **Licensed Rights** then existing, but not sold by the Company, as of the date of expiration or termination;

15.6.4 provide Canada the right of first refusal to purchase from the Company any products made from the exercise of the **Licensed Rights** inventory at fair market value;

15.6.5 dispose of any remaining products made from the exercise of the **Licensed Rights** in inventory as specified by Canada subject always to any obligations under Article 5.0 (Fees & Royalties);

15.6.6 pay all costs due under the **License Agreement** either by the Company on its behalf or a sub-licensee, up to and including the termination date, within thirty (30) days of the termination;

15.6.7 pay all costs due under the **License Agreement**, subsequent to the termination, for any products made from the exercise of the **Licensed Rights** sold after termination, within thirty (30) days of the liability being incurred;

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15.6.8 grant back to Canada any technology rights, clinical or research data arising from the **Licensed Rights** or otherwise under the **License Agreement**;

15.6.9 assign to Canada (or her nominee) any equities, goodwill, or other rights which the Company has or alleges to have acquired in the **Licensed Rights** or derived in the **Commercialization**. The Company shall also execute such further documentation as Canada may reasonably request in order to confirm such assignment;

15.6.10 pay immediately to Canada any royalties, fees, reimbursements or other financial obligations irrespective of the fact such monies are owed, but for the termination or expiration, not yet payable; and

15.6.11 assign or transfer for [*] in total consideration, any and all authorizations, permits, certificates or other regulatory permissions obtained in order to Commercialize, to any third party identified by Canada or to Canada itself, within ninety (90) days of termination or expiration, unless otherwise requested by Canada.

B) Upon expiration of the **License Agreement**, the Company shall at its own cost, perform the duties set out in sections 15.6.1 to 15.6.8. Further, upon expiration, the Company shall grant to Canada the right to exercise an option to negotiate with the Company an agreement dealing with the matters set out in sections 15.6.9 to 15.6.11. The **Parties** shall negotiate the agreement in good faith. The agreement shall contain mutually acceptable terms and conditions and the consideration shall be commercially reasonable.

15.7 **Surviving Obligations**

All obligations of the **Parties** which expressly or by their nature survive termination or expiration, shall continue in full force and effect subsequent to and notwithstanding such termination or expiration, until they are satisfied or by their nature expire. For greater clarity, and without restricting the generality of the foregoing, the following provisions survive termination or expiration:

15.7.1 Paragraph 2.2 (Carve Out);

15.7.2 Article 5.0 (Fees and Royalties);

15.7.3 Article 6.0 (Records & Audit);

15.7.4 Paragraphs 8.4 to 8.6 (Improvements — Ownership, Company Improvements -Disclosure, Company Improvements - License to Canada);

15.7.5 Article 11.0 (Confidentiality / Fiduciary & Equitable Remedies);

15.7.6 Article 13.0 (Indemnity, Insurance and Liability Allocation & Caps); and

15.7.7 Paragraph 15.6 (The Company's Duties on Termination or Expiration).

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16.1 Negotiations

16.1.1 INFORMAL NEGOTIATIONS

If a **Dispute** arises between the **Parties**, then: within 6 months from when the allegedly aggrieved **Party** knows or should know of the **Dispute**, the contact individuals in Article 20.1 (Notice) shall,

- 16.1.1.2 contact their counterpart, and attempt bona fide efforts to diligently resolve the **Dispute** through amicable negotiations;
- 16.1.1.3 provide full, frank and timely disclosure of all relevant facts, information and documents to facilitate those negotiations;
- 16.1.1.4 resolve the **Dispute** within 7 days;
- 16.1.1.5 reduce the **Dispute** to writing, and if the contact persons cannot agree on the wording of the **Dispute**, both contact persons shall submit to each other their written version of the **Dispute**.

16.1.2 FORMAL NEGOTIATIONS

If the **Parties** are unable to resolve the **Dispute** within fourteen (14) calendar days from the receipt by the other **Party** of the written version of the **Dispute**, then within the following thirty (30) days the Dispute shall be referred to the Chief Public Health Officer, on behalf of Canada, and to the CEO, on behalf of the Company (or their directly reporting designates), to negotiate a resolution.

- 16.1.2.2 These individuals may not delegate, substitute or direct, surrogates for them at these negotiations.
- 16.1.2.3 These individuals shall meet in person to negotiate and the **Parties** shall bear their own costs.
- 16.1.2.4 Unless otherwise agreed, the meetings shall alternate between Company, HQ, and Canada, HO, commencing in Ottawa, Ontario, for the first meeting for the first **Dispute**. There shall be one meeting only per **Dispute**, which meeting shall not exceed one (1) business day in length.
- 16.1.2.5 The **Parties** may bring no more than two consultants to a meeting. The two consultants shall not have a right of audience or otherwise to negotiate the **Dispute**.

16.2 Mediation

If, within thirty (30) days following the close of the meeting under paragraph 16.1.2 (Formal Negotiations), the **Parties** have not succeeded in negotiating a resolution, then the **Parties** shall jointly submit the **Dispute** to mediation.

16.3 Skip Mediation - Direct to Arbitration

If the **Parties** cannot agree to jointly submit the **Dispute** to mediation, then either **Party** may submit the **Dispute** to binding arbitration.

16.4 Mediation Process

The Parties shall

16.4.1 APPOINTMENT OF MEDIATOR

appoint a mutually acceptable mediator with sixty (60) days from the close of the formal negotiation meeting under sub-paragraph 16.1.2 (Formal Negotiations);

16.4.2 GOOD FAITH EFFORTS

participate in good faith in the mediation and negotiations related thereto;

16.4.3 EMPOWERED REPRESENTATIVES

representatives sent to the mediation shall be empowered or have sufficient delegated authority to resolve, compromise, negotiate or settle the **Dispute** submitted to mediation, without seeking further instructions or approvals from any superiors or committees / corporate structures, unless the nature, seriousness or financial quantum of the **Dispute** by law or corporate policies or practices requires approval from the respective corporate or government structure. In such event, such approval shall be obtained within five (5) business days of the proffer of any settlement offer;

16.4.4 COSTS

bear the costs of the mediation equally, except that each **Party** shall bear its own personal costs of the mediation;

16.4.5 FULL DISCLOSURE

a full, frank and timely manner all relevant facts, information and documents to facilitate the mediation; and

16.4.6 LOCATION

The mediation shall take place in the city that was not the site of the formal negotiations for the **Dispute**.

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16.5 Unsuccessful Mediation — Remit to Arbitration

The **Dispute** shall be referred to binding arbitration by either or both **Parties** if the **Parties** are not successful in resolving the **Dispute** through mediation.

16.6 Arbitration - Structure

After negotiation and if applicable, mediation), any subsisting **Dispute** between the **Parties**, shall be referred to arbitration by a written submission signed by either Canada or the Company.

16.6.1 FORUM LAWS PROCEDURAL RULES

The arbitration tribunal shall be governed by the UN Commercial Arbitration Code, referred to in the Commercial Arbitration Act, R.S.C. 1985, c.C-34.6 (“Code”).

16.6.2 NUMBER OF ARBITRATORS

The arbitration tribunal shall consist of one arbitrator chosen by the **Parties**.

16.6.3 ISSUE BEFORE ARBITRATOR

The scope of the arbitration shall be limited to the resolution of the **Dispute** submitted to arbitration.

16.6.4 APPLICABLE SUBSTANTIVE LAW

The arbitration tribunal shall decide the **Dispute** (including limitations, set-off claims) in accordance with the laws in force in the Province of Ontario and any applicable federal laws.

16.6.5 NO EQUITY

The arbitration tribunal shall not be authorized to decide *ex aequo et bono* or as *amiable compositeur*.

16.6.6 ARBITRAL INTERIM ORDERS

Subject to subparagraph 16.6.5 (No Equity) the arbitration tribunal shall have all the powers of a court at law or in equity, including the power to make interim orders, orders of injunction (either mandatory or prohibitory), rectification, expungement and orders for interest. However in no case will the final decision breach the strictures of subparagraph 16.6.5 (No Equity).

16.6.7 LOCATION

The proceedings shall take place in the city that was not the site of the mediation (or if there was no mediation, in the city that was not the site of the negotiation meeting), unless the **Parties** agree otherwise.

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16.6.8 LANGUAGE

The language used in the proceedings shall be English.

16.6.9 NOTICES

All written communication shall be delivered to the **Parties** hereto in the manner provided for in Article 20.1 (Notice).

16.6.10 COSTS

The costs of the tribunal’s fees and expenses shall be shared equally by the **Parties**. The **Parties** shall bear their own costs except that the losing **Party** shall pay all costs, fees, levies and **Taxes** arising from and necessitated by the enforcement of the arbitration tribunal’s award, including, without limitation, registration enforcement charges or other judicial levies.

16.7 Emergencies / Judicial Jurisdiction

The **Parties** are not precluded from bringing an application to a Court having jurisdiction for interim or interlocutory relief, in law or in equity, including, without limitation, injunctive relief, if such relief is urgently required to preserve the rights or property of either or both of the **Parties**, pending the final determination of those rights in a subsequent arbitral proceeding as contemplated in this Article.

16.8 *Final & Binding*

Subject to the Code, the **Parties** hereto agree that the award and determination of the arbitration tribunal shall be:

16.8.1 final and binding on both **Parties**;

16.8.2 without right of appeal;

16.8.3 the exclusive remedy between the **Parties**, regarding any claims, counterclaims, issues or accountings presented or pled to the arbitration tribunal, and

the judgment upon the award rendered by the arbitration tribunal may be entered in any Court having jurisdiction thereof or having jurisdiction over either of the **Parties**.

16.9 *Arbitral Decision Deadline*

The arbitration tribunal retainer shall contain the obligation that the arbitration tribunal render a written decision with reasons within thirty (30) days from the close of the hearing or submission of written argument.

16.9.1 If the facts and law are either too complicated or voluminous to allow a properly considered decision within thirty (30) days, then the decision shall be rendered in not less than one hundred and eighty (180) days, but the arbitrator shall notify the

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Parties of the longer decision period by not later than the close of final arguments.

16.10 *Power to Settle*

The **Parties'** representatives at any arbitration throughout the arbitration shall be empowered or have sufficient delegated authority to resolve, compromise, negotiate or settle the **Dispute** submitted to arbitration, without seeking further instructions or approvals from any superiors or committees / corporate structures. The representatives shall either be the same persons as in paragraph 16.1.2 (Formal Negotiations) or their immediate subordinates.

16.10.1 Notwithstanding the foregoing, if the nature, seriousness or financial quantum of the **Dispute** in law or corporate policies/practices requires approval from the Board of Directors, or the Chief Public Health Officer, as the case may be, then, such approval shall be obtained within five (5) business days of the proffer of any settlement offer.

16.10.2 If applicable, the arbitration tribunal shall withhold its final decision until the **Parties** have ceased negotiating a settlement.

16.11 *Adjournment to Empower Representative*

Breach of paragraph 16.10 (Power to Settle, [Duly empowered representative]), shall entitle the other **Party** to seek an adjournment of the arbitration proceedings, to give the breaching **Party** time to appoint a duly empowered representative within the thirty (30) days. All costs directly traceable to such delay, including arbitration tribunal costs and the non-breaching **Party's** costs, shall be paid forthwith by the breaching **Party**.

16.12 *Deemed Abandonment*

Failure of the breaching **Party** to appoint such a representative within the thirty (30) day period shall be deemed a withdrawal or abandonment of the **Dispute** by the breaching **Party** and the arbitrator shall render a formal decision, finding in favour of the non-breaching **Party**.

16.13 *General ADR Conditions*

16.13.1 NO LITIGATION

If either **Party** has submitted the **Dispute** to court, which **Dispute** should properly have been submitted for resolution by arbitration, then the court filing **Party** shall discontinue the court proceedings forthwith, upon notice from the other **Party**, and both **Parties** shall remit the **Dispute** to arbitration hereunder.

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16.13.2 OBLIGATIONS DURING ALTERNATE DISPUTE RESOLUTION (ADR)

During the progress of ADR, the **Parties** hereto shall continue to diligently perform their obligations under the **License Agreement**.

16.13.3 PRIVILEGE

Neither **Party** shall be required to disclose documents that are privileged or created in contemplation of litigation. If a **Party** does disclose such a document during ADR, that disclosure shall not be construed as a waiver of any privilege unless the disclosing **Party** so elects in writing.

16.13.4 CONFIDENTIALITY

The **Parties** shall keep confidential the existence of the proceeding under this article, and any element of the ADR (including, without limitation, all conduct, statements, promises, offers, views, pleadings, briefs, documents, testimonies, identity of witnesses, submissions, awards and opinions, whether oral or written), made in the course of the ADR, except as may be lawfully required in judicial or regulatory proceedings relating to the arbitration or otherwise. Without limiting the generality of the foregoing, and for greater clarity, neither **Party** may make any publicly accessible statements / publications nor any shareholder or press announcements concerning any element of the ADR beyond the fact of the ADR.

16.13.5 ADR DISCLOSURES NOT ADMISSIBLE IN SUBSEQUENT PROCEEDINGS

Subject to subparagraph 16.13.6 (Normally Admissible Evidence), all conduct, statements, promises, offers, views and opinions, whether oral or written, made in the course of the ADR by either **Party**, or the mediator or arbitrator, are not discoverable or admissible for any purposes, including impeachment, in any subsequent litigation or other proceedings involving the **Parties**.

16.13.6 NORMALLY ADMISSIBLE EVIDENCE

Evidence that would otherwise be discoverable or admissible and was not created for an ADR, is not excluded from discovery or admission solely as a result of its use in the ADR.

16.14 Limitation

All **Disputes** must be submitted to ADR within one (1) year from the time of the facts giving rise to the **Dispute**. Failure to submit the **Dispute** within the one (1) year period means a loss of all rights to submit the **Dispute** to ADR or litigation.

16.15 Material Breach

The failure, neglect or unwillingness of a **Party** to use or diligently participate in and prosecute a **Dispute** through ADR is a material breach of the **License Agreement**.

17.0 INTENT AND INTERPRETATION

17.1 Entire Agreement

The **License Agreement** constitutes the entire and exclusive agreement between the **Parties** pertaining to the **Commercialization** and licensing and supersedes all prior agreements, conditions, obligations, understandings, and negotiations both written and oral. The **License Agreement** sets forth all obligations, undertakings, conditions, representations and warranties forming part of, or in any way affecting or relating to the **Commercialization**. The **Parties** acknowledge that with respect to the **Commercialization** there are no agreements, obligations, undertakings, representations or warranties whether collateral, oral or written, between the Company and Canada other than those expressly set out in the **License Agreement**.

17.2 No Third Parties

Neither the **License Agreement** or any provision thereof is intended to confer upon any person other than the **Parties**, any rights or remedies hereunder.

17.3 No Pre-Contractual Inducing Representations

The **License Agreement** supersedes and revokes all negotiations, arrangements, letters of intent, offers, proposals, brochures, term sheets, representations, memoranda of understandings and information conveyed, whether oral or in writing or electronically, between the **Parties**, or any other person purporting to represent the Company or Canada. Each of the **Parties** agrees that:

17.3.1 neither has been induced to enter into the **License Agreement** by any representations whatsoever not set expressly forth in the **License Agreement**;

17.3.2 neither has relied on any such representations;

17.3.3 no such representations shall be used in the interpretation or construction of the **License Agreement**; and

17.3.4 no claims (including, without limitation, loss of profits, indirect, incidental, consequential damages and economic loss) arising directly or indirectly, from any such representation, negligent or otherwise, shall accrue in law or equity, or be pursued by the Company, and Canada shall have no liability for any such claims.

17.4 Due Diligence Search

The Company agrees that it has conducted its own due diligence examinations in order to satisfy itself of the full, true and plain disclosure of all facts pertinent to the **Licensed Rights** and all representations made by Canada.

17.5 Independent Legal Advice

It is acknowledged by the **Parties** that each has had legal advice to the full extent deemed necessary by each **Party**. Furthermore, the **Parties** acknowledge that neither acted under any duress in negotiating, drafting and executing the **License Agreement**.

17.6 No Adverse Presumption in Case of Ambiguity

There shall be no presumption that any ambiguity in the **License Agreement** be resolved in favour of either of the **Parties**. For greater certainty, the *contra proferentum* rule shall not be applied in any interpretation of the **License Agreement**.

17.7 Severability

If a jurisdiction declares, finds or holds any part of the **License Agreement** invalid, void, unenforceable or contrary to public policy for any other reason, then:

17.7.1 NON-MATERIAL

if the invalid provision is not material or fundamental to the **License Agreement**, the invalid provision shall not affect the validity of the remainder which remainder shall continue if full force and effect and be construed as if the **License Agreement** had been executed without the invalid provision in that jurisdiction only;

17.7.2 MATERIAL

if the invalid provision is material to the **License Agreement** then that provision shall be “read down” or replaced with a provision which accomplishes, to such extent as is possible, the original legal and business purpose of such provision in a valid and enforceable manner, in that jurisdiction and the remainder of the **License Agreement** shall remain binding on the **Parties**; and

17.7.3 FUNDAMENTAL

if the invalid provision is fundamental to the **License Agreement**, including any of the elements of a bare license, then:

17.7.3.2 the jurisdiction which found the invalidity shall be deleted from the **Territory**; or

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17.7.3.3 if the jurisdiction cannot be deleted from the **Territory**, or there is more than one jurisdiction, then the **License Agreement** shall terminate.

17.8 Successors and Assigns

The **License Agreement** will be for the benefit of and be binding upon the heirs, executors, administrators, permitted successors, permitted assigns, and permitted **Affiliates** of the Company and other legal representatives, as the case may be, of each of the **Parties**. Every reference in the **License Agreement** to any **Party** includes the heirs, executors, permitted administrators, permitted successors, permitted assigns, and **Affiliates** and other permitted legal representatives of the **Party**.

17.9 Plurality and Gender

Reference to a **Party** will be read as if all required changes in the singular and plural and all grammatical changes rendered necessary by gender had been made.

17.10 Not a Joint Venture

The **Parties** expressly disclaim any intention to create a partnership, joint venture or joint enterprise. The **Parties** acknowledge and agree that:

17.10.1 nothing contained in the **License Agreement** nor any acts of any **Party** shall constitute or be deemed to constitute the **Parties** as partners, joint venturers or principal and agent in any way or for any purpose;

17.10.2 no **Party** has the authority to act for, or to assume any obligation or responsibility on behalf of any other **Party**; and

17.10.3 the relationship between the **Parties** is that of licensor and licensee.

17.11 Minister Not Fettered

Nothing in the **License Agreement** shall derogate or otherwise fetter the ability of Canada to regulate, administer, manage or otherwise deal with public health and all attendant matters thereto.

17.12 Federal Legislation

The application to the **License Agreement** of any Federal act or regulation includes any subsequent amendment, revision, substitution, consolidation to that act or regulation, notwithstanding that such amendment, revision or substitution occurred after the execution of the **License Agreement** or may have a retroactive effect.

17.13 Right to Legislate

Nothing in the **License Agreement** shall prohibit, restrict or affect the right or power of the Parliament of Canada to enact any laws whatsoever with respect to any area of law

for which the Parliament of Canada has legislative jurisdiction, even if the enactment of any such law affects the *License Agreement*, its interpretation, or the rights, obligations, liabilities, vested or not, accrued or accruing, of the *Parties*.

17.14 *Compliance with Law*

The *Parties* shall comply with all applicable laws, as those laws may be amended, revised, consolidated, substituted, from time to time, even if such amendment, revision, consolidation, substitution derogates prospectively or retroactivity from the *Parties'* vested or accrued rights, obligations and liabilities under the *License Agreement*.

17.15 *No Implied Obligations*

No implied terms or obligations of any kind, by or on behalf of either of the *Parties*, shall arise from anything in the *License Agreement*. The express covenants and agreements herein contained and made by the *Parties* are the only covenants and agreements upon which any rights against either of the *Parties* may be founded.

17.16 *Access to Information*

Notwithstanding any provision to the contrary in the *License Agreement*, the Company acknowledges that Canada is subject to the Access to Information Act, R.S.C. 1985, c.A-1 and related acts, and may be required to release, in whole or in part, the *License Agreement* and any other information or documents in Canada's possession or control relating to the *License Agreement* and the *Parties*.

17.17 *Forum Conveniens & Applicable Laws*

Subject to Article 16 (ADR) any *Dispute*, shall be governed firstly by applicable Canadian Federal laws, and secondly by the laws of the Province of Ontario.

The *Parties* expressly exclude from the *License Agreement*:

- 17.17.1 application of the United Nations Convention on Contracts for the International Sale of Goods;
- 17.17.2 International Sales of Goods Act; and
- 17.17.3 any conflict of laws, venue, forum non-conveniens, rules or principles which might refer *Disputes* to the laws of another jurisdiction.

17.18 *Attornment*

The *License Agreement* shall be governed by and construed in accordance with the laws in force in the Province of Ontario, Canada and shall be treated in all respect as an Ontario, Canada contract. Subject to Article 16 (Alternate *Dispute* Resolution (ADR)) the *Parties* irrevocably and unconditionally attorn to and submit to the exclusive jurisdiction of the courts of Ontario, Canada and all courts competent to hear appeals therefrom with respect to any *Dispute* now or hereinafter arising under the *License Agreement*. The *Parties* waive any right each may have to object to an action being

brought in those courts including, without limitation, by claiming that the action has been brought in an inconvenient forum or that those courts do not have jurisdiction.

17.19 *USA Jury Trial*

If the *License Agreement* or any aspect of it becomes a subject of judicial proceedings whether in contract, tort, equity or otherwise, in the United States of America despite the ADR article and Forum Conveniens (paragraph 17.17), then the Company irrevocably waives any and all rights it has to a trial by jury in the United States. The Company agrees and consents that due to the technical and legal nature, including cross jurisdictional issues of the *License Agreement* or any aspect thereof, any such proceedings will be heard before a judge sitting alone.

17.20 *USA Jury Trial / Treble Damages Addendum*

For greater clarity, the Company waives any right to a trial by jury of any claim, demand action or caution of action

- 17.20.1 arising under the *License Agreement*; or
- 17.20.2 in any way connect with or related or incidental to the dealings of the *Parties* in respect of the *License Agreement* or any other agreements or the transactions related hereto or thereto in each case whether now existing or hereafter;
- 17.20.3 whether in contract, tort, equity or otherwise.

The Company agrees and consents that any such claim, demand, action or cause of action shall be decided by a court without a jury. Canada may file an original counterpart of the *License Agreement* with the court as written evidence of the consent of the *Parties* to the waiver of their right to a trial by jury. In addition, the Company irrevocably waives any rights to triple/treble damages or punitive damages under U.S. or any other law.

17.21 *Waiver of Counterclaims*

The Company waives any and all of its rights to interpose any claims, deductions, setoffs or counterclaims of any nature in any *Dispute* with respect to the *License Agreement*.

17.22 Due Diligence Audits

If in a subsequent transaction a third **Party** requires to review this **License Agreement** as part of a due diligence chain of title search, the Company hereby authorizes the release of this **License Agreement** subject to deleting any financial or proprietary or other **Confidential Information** contained herein.

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17.23 Recitals Accurate

The **Parties** acknowledge the truth and accuracy of the recitals and further acknowledge that the recitals may be used by a court, mediator or arbitrator to help resolve any **Dispute**.

17.24 Force Majeure

17.24.1 EVENTS

Subject to making all payments required under the **License Agreement**, neither **Party** shall be in breach of any of its obligations under the **License Agreement** where the failure to perform or delay in performing any obligation is due, wholly or in part, directly or indirectly to the occurrence of a force majeure event including, without limitation:

- 17.24.1.2 war, whether declared or not, civil war, revolution, acts of piracy / terrorism, acts of sabotage;
- 17.24.1.3 natural disasters such as violent or destructive storms, cyclones, earthquakes, tidal waves floods, destruction by lightning;
- 17.24.1.4 explosions, fires, destruction of machines, factories, and any kind of installation;
- 17.24.1.5 boycotts, strikes and lock-outs of all kinds, go-slows, occupation of factories and premises, and work stoppages which occur in the enterprise of the **Party** seeking relief;
- 17.24.1.6 acts of governmental bodies, agencies, boards, whether lawful or unlawful other than those of the Public Health Agency of Canada,

but does not include:

- 17.24.1.7 the lack of regulatory or other approvals, licenses, permits and authorizations necessary for the performance of the **License Agreement** which are issued by a public authority of any kind whatsoever for which the Company did not apply for or diligently prosecute;
- 17.24.1.8 the inability of the affected **Party** to obtain financing or any other financial inability on the part of either **Party** to meet its obligations under the **License Agreement**;
- 17.24.1.9 force majeure events that the affected **Party** knew or should have reasonably known at the time of negotiating the **License Agreement** were probable or avoidable or the effects of which could be minimized, and the affected **Party** took no steps to deal with such force majeure events, including without limitation obtaining the appropriate insurance, using updated machinery;
- 17.24.1.10 the portion of the breach or delay due to the failure of the affected **Party** to take all necessary reasonable steps to minimize, overcome or control the effects of the force majeure event.

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17.24.2 DUTY TO NOTIFY

The **Party** affected by a force majeure event as contemplated in subparagraph 17.24.1 (Force Majeure) shall:

- 17.24.2.2 give notice to the other **Party** of such force majeure and its effects on the affected **Party**'s ability to perform as soon as practicable after the force majeure and its effects upon the affected **Party**'s ability to perform become known to that **Party**. Notice shall be given when the ground of relief ceases;
- 17.24.2.3 take all reasonable efforts to correct, compensate or minimize the effect of the force majeure event.

17.24.3 COMMENCEMENT OF RELIEF

The affected **Party** shall in the affected jurisdiction only:

- 17.24.3.2 be excused of its obligations under the **License Agreement** to the extent necessitated by the force majeure event from the time of the force majeure event or if notice was not given as soon as practical, from the receipt of such notice. Failure to give notice makes the failing **Party** liable in damages for losses suffered by the other **Party** which otherwise could have been avoided; and
- 17.24.3.3 complete or continue performance of its obligations and duties under the **License Agreement** as soon as practical after the cessation, removal, or overcoming of the force majeure event.

17.24.4 TERMINATION OF AGREEMENT

If the force majeure event continues in excess of sixty (60) consecutive days, or in the aggregate 60 days over any consecutive 200 days, then at any time thereafter Canada shall have the option to renegotiate the **License Agreement** with the Company reasonably and

in good faith. If the **Parties** are unable to agree to the terms of the proposed amended **License Agreement** within 60 days from the notice to negotiate, then the **License Agreement** may be terminated by Canada on the 61st day.

17.24.5 POSTPONEMENT OF OBLIGATIONS

Any obligations of a **Party** under the **License Agreement** shall be postponed automatically to the extent and for the period and only within the jurisdiction or jurisdictions that the affected **Party** is prevented from meeting those obligations by reason of any cause beyond its reasonable control (other than lack of funds and applicable regulatory approval). The affected **Party** shall immediately notify the other **Party** of the commencement, nature of such cause and probable consequence. The affected **Party** shall also use its

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reasonable best efforts to render performance in a timely manner, utilizing all resources reasonably required in the circumstances.

17.25 Waiver

No condoning, excusing, or overlooking by either of the **Parties** of any default by the other **Party**, at any time or times, in performing or observing any of the **Parties'** respective covenants, will operate as a waiver renunciation, surrender, of or otherwise affect the rights of the **Parties** in respect of any continuing or subsequent default. No waiver of these rights will be inferred from anything done or omitted by the **Parties**, except by an express waiver in writing.

17.26 No Estoppel Due to Third Party Practices

No custom, practice or usage regarding other **License Agreements** between Canada and other **Parties** shall preclude at any time the strict enforcement of the **License Agreement** by Canada or the Company.

17.27 Contract Always Speaks

Where a matter or thing is expressed in the present tense, it shall be applied to the circumstances as they arise, so that effect may be given to the **License Agreement** according to its true spirit, intent and meaning.

17.28 Time is of the Essence

Time is of the essence in the **License Agreement** with respect to the financial and **Commercialization** obligations of the Company.

17.29 Headings

17.29.1 All headings in the **License Agreement** have been inserted as a matter of convenience and for reference only, and in no way define, limit, enlarge, modify, the scope or meaning of the **License Agreement** or any of its provisions.

17.29.2 Nevertheless an arbitrator or Judge may use any or all of the table of contents, recitals, and headings when reviewing the covenants, statements, representations & warranties and conditions subsequent to better understand the commercial and legal intent of the **License Agreement's** provisions.

17.30 Internal References

Any reference in the **License Agreement** to an Article, paragraph, sub-paragraph, will mean an Article, paragraph or sub-paragraph of the **License Agreement**, unless otherwise expressly provided.

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17.31 Precedence Over Appendices

If there is a conflict or ambiguity between the **License Agreement** proper and any appendix thereto, the interpretation consistent with **License Agreement** proper (taking into consideration the statements in the recitals and headings) shall prevail and apply, notwithstanding any wording to the contrary in the applicable appendix.

17.32 Appendices

Subject to paragraph 17.31 (Precedent Over Appendices) the documents attached hereto as Appendix A, B, C and D form an integral part of this **License Agreement** as fully as if they were set forth herein *in extenso*, and consist of:

Appendix "A" — DESCRIPTION OF THE LICENSED RIGHTS
Appendix "B" — CONFIDENTIALITY AGREEMENTS
Appendix "C" — BUSINESS PLAN
Appendix "D" — AFFILIATES

18.0 LEGAL RIGHTS

18.1 Amendments

No modification or waiver of any provision of the **License Agreement** will be inferred from anything done or omitted by either of the **Parties**, except by an express amendment in writing, duly executed by the **Parties** in advance.

18.2 No Assignment Without Consent

The **License Agreement** is personal to the Company. The Company shall not assign the **License Agreement** or any of the Company's rights, duties or obligations under the **License Agreement** to a third party without the prior written consent of Canada, such consent not to be unreasonably withheld. Any attempt to assign this **License Agreement** or any of the Company's rights, duties or obligations under the **License Agreement** without the prior written consent of Canada is void.

18.3 Mode of Assignment / Approval Conditions

Without derogating from paragraph 18.2 (Assignment), the Company shall not assign (or transfer, sell, encumber, pledge, grant a security interest sub-license or otherwise deal) or permit any such assignment, in whole or in part, of the **License Agreement** or any of its interest, rights or obligations hereunder, whether such assignment takes place by way of:

- 18.3.1 sale of assets;
- 18.3.2 sale of shares;
- 18.3.3 amalgamation, merger or other reorganization of the Company;

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- 18.3.4 merger, transfer, conversion, assignment, redemption, issuance, sale, cancellation, pledge, conversion or other dealings with any securities of the Company;
 - 18.3.5 operation of law;
 - 18.3.6 acquisition by a person or persons acting in concert of a majority interest of the securities of the Company by a person or persons acting in concert who did not hold such a majority interest at the time of the initial public offering (IPO) or at any time after the IPO.
 - 18.3.7 operation of contract; or
 - 18.3.8 otherwise in any manner or structure whatsoever;

without the prior written consent of Canada, which consent subject to subparagraph 18.3.9 will not be unreasonably withheld.

- 18.3.9 Any consent from Canada shall be contingent and effective only upon receipt by Canada of payment of [*].
- 18.3.10 Consent to any assignment will not be construed as consent to any other assignment.

18.4 No Consent — Material Breach

Failure of the Company to obtain the prior written consent of Canada to any assignment shall be deemed to be a material breach of the **License Agreement**.

18.5 Assignment Prejudicial - Compensation

It will not be unreasonable for Canada to refuse to consent to any assignment if it is foreseeable that the assignment might negatively affect Canada in any way, or put Canada in breach of any contract with a third party or derogate from the **Commercialization**. Notwithstanding the foregoing, Canada may still consent in exchange for payment of both [*].

18.6 No Comfort Letter

Notwithstanding anything to the contrary in the **License Agreement**, Canada shall be under no obligation whatsoever to sign any a comfort letter or other undertaking to a third party for the benefit of the Company. If Canada so elects pursuant to its unfettered discretion, then the Company shall pay or provide security in the amount of liability so accepted or incurred by Canada.

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18.7 Subcontracting

The Company has the right to subcontract any portion, but not all, of the **License Agreement**, subject to the following:

- 18.7.1 subcontracting activities (including subcontracts entered into with contract research organizations) shall be carried out by the Company in a manner that is consistent with the Company's obligations under paragraphs 2.4 to 2.7 of the **License Agreement**;
- 18.7.2 the Company shall notify Canada in writing of any significant subcontracts or subcontractors of whom the Company is aware may have an interest in the technology or a collaboration with Canada;
- 18.7.3 the subcontract cannot be a *de facto* assignment; and
- 18.7.4 no rights, obligations, power or control vested in the Company shall be contingently or otherwise transferred to any third party.

18.8 *No Third Party Rights*

Nothing expressed or implied in the **License Agreement** is intended to, or shall be construed to confer on or give to, any person other than the **Parties**, any rights or remedies under or by reason of the **License Agreement**.

18.9 *Remedies Cumulative*

All rights, powers and remedies provided by the **License Agreement** are cumulative with, and not exclusive of, the rights, powers or remedies provided by law or equity independently of the **License Agreement**.

18.10 *Mutual Assistance*

The **Parties** will at all times hereafter, upon every reasonable request of the other, make, do, and execute or cause to be procured, made, done, and executed, all such further acts, deeds and assurances for the carrying out of the terms, covenants and agreements of the **License Agreement**, according to the true intent and meaning of the **License Agreement**. These obligations shall continue post termination or expiry until all pre and post termination obligations are satisfied.

18.11 *Counterpart*

The **License Agreement** may be executed simultaneously in counterpart, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

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19.0 CROWN GENERAL

19.1 *No Bribes*

The Company warrants that no bribe, gift, or other inducement has been paid, given, promised or offered to any Government official or employee for the obtaining of this **License Agreement**.

19.2 *No Share to Members of Parliament*

Pursuant to the Parliament of Canada Act, R.S.C. 1985, c.P-1, no member of the House of Commons or Senate will be admitted to any share or part of the **License Agreement** or to any benefit arises from the **License Agreement**.

19.3 *Public Office Holders*

It is a term of this **License Agreement** that no former public Office holder, who is not in compliance with the post employment provisions of the Conflict of Interest and Post Employment Code for Public Office Holders, shall derive a direct benefit from this **License Agreement**.

20.0 NOTICE

20.1 *Addresses / Contacts*

Wherever in this **License Agreement** it is required or permitted that notice or demand be given, or served by either **Party** to or on the other **Party**, such notice or demand will be in writing and will be validly given or sufficiently communicated if hand delivered or forwarded by certified mail, priority post mail, telegram, or facsimile or sent by overnight delivery by a nationally recognized courier as follows:

The addresses for delivery are:

To the Company:

Nicholas Vahanian
Chief Medical Officer
BioProtection Systems Corporation
2901 S. Loop Dr., Suite 3360
Ames, IA, USA
50010
Telephone: (515) 598-2922
Facsimile: (515) 296-3820
Email: nvahanian@linkp.com

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To Canada:

Dorothea Blandford, PhD
Director, Intellectual Property Management & Business Development Operations
Public Health Agency of Canada
1015 Arlington Street, Suite 2420

Winnipeg, Manitoba
Canada R3E 3R2
Telephone: (204) 789-2096
Facsimile: (204) 789-2097
Email: dorothea_blanciford@hc-sc.dc.ca

The Parties shall send an e-mail version of the notice or demand at least 24 hours prior to the hard or facsimile copy, but failure to send the email version does not invalidate or otherwise make subsequent service of the notice defective,

20.2 Deemed Delivery

Notice will be deemed to have been delivered:

- 20.2.1 if delivered by hand, upon receipt;
- 20.2.2 if sent by electronic transmission, forty-eight (48) hours after the time of confirmed transmission, excluding from the calculation weekends and public holidays;
- 20.2.3 if sent by certified mail, four (4) days after the mailing thereof, provided that if there is a postal strike or other disruption, such notice will be delivered by hand or electronic transmission.

20.3 Change of Address

The **Parties** may change their respective addresses for delivery by delivering notice of change as provided in this paragraph.

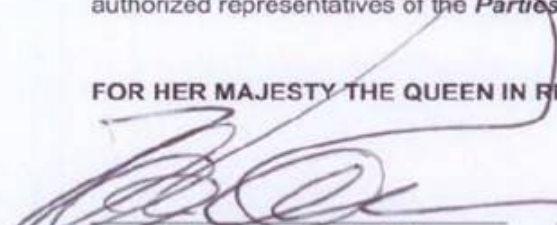
21.0 EXECUTION

IN WITNESS WHEREOF this **License Agreement** has been executed in duplicate by the duly authorized representatives of the **Parties**, on the date(s) set out below.

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA:

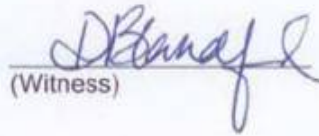
authorized representatives of the **Parties** on the date(s) set out below.

FOR HER MAJESTY THE QUEEN IN RIGHT OF CANADA:



Frank A. Plummer, O.C. O.M.
MD LL.D, FRCPC, FRSC
Chief Science Advisor

30-Apr-2010
(Date)



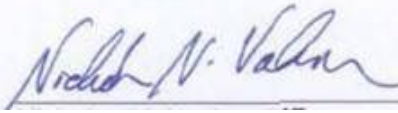
(Witness)

Frank A. Plummer, O.C. O.M.
MD LL.D, FRCPC, FRSC
Chief Science Advisor

(Date)

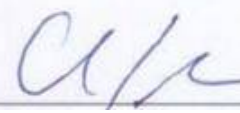
(Witness)

FOR THE COMPANY:



Nicholas Vahanian, MD
Chief Medical Officer

5/4/2010
(Date)



(Witness)

Nicholas Vahanian, MD
Chief Medical Officer

(Date)

(Witness)

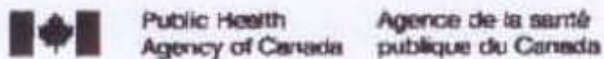
I have authority to bind the corporation

APPENDIX "A" DESCRIPTION OF THE LICENSED RIGHTS

[*]Recombinant Vesicular Stomatitis Virus Vaccines for Viral Hemorrhagic Fevers [*].

APPENDIX "B" CONFIDENTIALITY AGREEMENTS

(APPENDED OVER THE NEXT 8 PAGES)



Office of Director
Business Development and Operations
National Microbiology Laboratory
1015 Arlington Street
Winnipeg, Manitoba R3E 3R2

April 14, 2010

Nicholas Vahanian
BioProtection Systems Corporation
Iowa State University Research Park,
2901 South Loop Drive, Suite 3360,
Ames, Iowa 50010

RE: Non Disclosure Agreement dated, November 18, 2008 between the Public Health Agency of Canada (referred to as "PHAC"), and BioProtection Systems Corporation (referred to as "BPS").

Dear Dr Vahanian,

PHAC and BPS have executed a Non Disclosure Agreement dated November 18, 2008. The parties hereby agree to amend the Agreement as follows:

- i) Section 9C, "The term of this Agreement shall commence on its effective date and remain in force for **eighteen (18)** months thereafter, except that the Agreement shall remain effective with respect to the confidential information disclosed under this Agreement for the remainder of any period of confidentiality pursuant to subparagraph 9b above."

Shall be replaced by

Section 9C "The term of this Agreement shall commence on its effective date and remain in force for **sixty (60)** months thereafter, except that the Agreement shall remain effective with respect to the confidential information disclosed under this Agreement for the remainder of any period of confidentiality pursuant to subparagraph 9b above."

All other terms and conditions of the Agreement will remain in full force and effect and shall continue the duration of the Agreement. This letter, upon execution by both parties, shall form part of the Agreement and the two documents shall be read together.

If the foregoing amendment is satisfactory, please counter sign this letter on behalf of the Participants in the spaces provided, and return the signed letter to our office via electronic PDF copy to sabrina_choma@phac-aspc.gc.ca

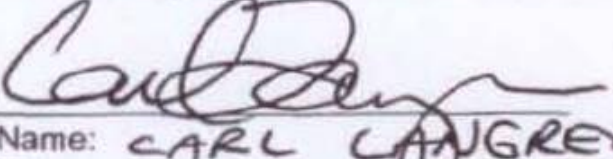
Sincerely,

PDF copy to sabrina_choma@phac-aspc.gc.ca

Sincerely,

A handwritten signature in black ink, appearing to be "S. Choma", written over the word "Sincerely,".

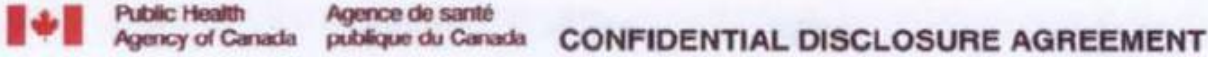
Acknowledged and agreed to on behalf of BPS:



Name: CARL LANGREN
Title: CHIEF FINANCIAL OFFICER

Name: Carl Langren
Title: Chief Financial Officer

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THE PARTIES ARE: Her Majesty the Queen in Right of Canada as represented by the Minister of Health (“Public Health Agency of Canada”)
Whose address is:
National Microbiology Laboratory
Canadian Science Centre for Human and Animal Health Canada
1015 Arlington Street, Winnipeg, MB R3E 3R2, CANADA
(called “PHAC”) OF THE FIRST PART

AND: BioProtection Systems Corporation
Whose address is
Iowa State University Research Park, 2901 South Loop Drive,
Suite 3360, Ames Iowa 50010
(called the “Participant”) OF THE SECOND PART

Effective Date: November 1, 2008

In order to protect certain confidential information the Parties identified above, agree on terms about confidentiality which fairly protects both parties.

1. Disclosing Party: The party(ies) disclosing confidential information (“Disclosing Party”) is/are: Public Health Agency at Canada, National Microbiology Laboratory, 1015 Arlington Street, Winnipeg, MB 133E 3R2, and BioProtection Systems Corporation, 2901 South Loop Drive, Suite 3360, Ames, Iowa 50010.
2. Primary Representative: The representative(s) of each party for coordinating the disclosure and/or receipt of confidential information are: Dr. Steven Jones and Dr. Dorothea Blandford and Dr. Nicholas Vahanian.
3. Description of Confidential Information: The subject matter of the confidential information disclosed under this Agreement is described as:
Public Health Agency of Canada: [*].
Participant: scientific and technical information relating to the pipeline products; business information.
4. Use of Confidential Information: The party receiving the confidential information (“Recipient”) shall keep the confidential information in strict confidence and shall make use of the confidential information only for the following purpose: to discuss scientific and business arrangements in view of negotiating a license agreement.
- 5a. Standard of Care: Recipient shall protect the disclosed confidential information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized

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use, dissemination, or publication of the confidential information, as Recipient uses to protect its own confidential information of a like nature.

5b. In particular, and without limiting the generality of the foregoing, Recipient shall not copy, reproduce, divulge, publish or circulate (or permit anyone else to do so) any of the confidential information disclosed to it by the Disclosing Party, except to such of its employees [and/or contractors and consultants] as may require access to the confidential information on a strict need-to-know basis for the uses contemplated in paragraph 4.

6. Markings: Recipient's obligations shall extend to confidential information that is described in paragraph 3, and that (a) if set out in written, graphical, photographic or other tangible form (including, without limitation thereto, machine readable object code), is marked "Confidential" or "Proprietary" by the Disclosing Party, or (b) if disclosed orally, is identified as confidential or proprietary at the time of disclosure and a written summary thereof marked "Confidential" or "Proprietary" is furnished by the Disclosing Party to Recipient within thirty (30) days after such oral disclosure.

7. Exclusions: This Agreement imposes no obligation upon Recipient with respect to information that: (a) was in Recipient's possession before receipt from the Disclosing Party; (b) is or becomes a matter of public knowledge through no fault of Recipient; (c) is rightfully received by Recipient from a third party without a duty of confidentiality; (d) is disclosed by the Disclosing Party to a third party without a duty of confidentiality on the third party; (e) is independently developed by Recipient; (f) is disclosed under operation of law, including the Access to Information Act of Canada; or (g) is disclosed by Recipient with the Disclosing Party's prior written approval.

8. Warranty: Each Disclosing Party warrants that it has the right to make the disclosures under this Agreement.

NO OTHER WARRANTIES ARE MADE BY EITHER PARTY UNDER THIS AGREEMENT. ANY INFORMATION EXCHANGED UNDER THIS AGREEMENT IS PROVIDED "AS IS".

NEITHER PARTY PROVIDES ANY OTHER REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE OF ANY KIND WITH RESPECT TO THE CONFIDENTIAL INFORMATION IT DISCLOSES.

9a. Rights: Neither party acquires any intellectual property rights under this Agreement except the limited rights necessary to carry out the purposes set forth in paragraph 4. This Agreement shall not restrict reassignment of Recipient's employees.

9b. The obligations set out in paragraphs 4 and 5 above shall become effective with respect to any confidential information immediately upon its disclosure by the Disclosing Party to Recipient and shall continue for a period of three (3) years thereafter.

9c. The term of this Agreement shall commence on its effective date and remain in force for 18 months thereafter, except that the Agreement shall remain effective with respect to the

confidential information disclosed under this Agreement for the remainder of any period of confidentiality pursuant to subparagraph 9b above.

9d. Upon request made by the Disclosing Party during the term of the Agreement, Recipient shall return the confidential information and all copies thereof to the Disclosing Party or, at the option of the Disclosing Party, destroy the confidential information and all copies thereof, and Recipient shall certify in writing within five (5) days of the receipt of the request from the Disclosing Party that it has complied with that request.

Miscellaneous

10. The only terms concerning confidentiality relating to the information described in paragraph 3 are in this Agreement and in the Access to Information Act of Canada.

11. This Agreement imposes no obligation on either party to purchase, sell, licence, transfer or otherwise dispose of any technology, services or products, and neither this Agreement nor the disclosure or receipt of confidential information under this Agreement constitutes or implies any undertaking or commitment by either party to enter into any further activity, arrangement or course of action with the other party or with any third party.

12. Both parties shall adhere to all applicable laws, regulations and rules relating to the export of technical data, and shall not export or re-export any technical data, any products received from the Disclosing Party, or the direct product of such technical data to any prescribed country listed in such applicable laws, regulations and rules unless properly authorized.

13. This Agreement does not create any agency or partnership relationship.

14. This Agreement cannot be modified except by a document signed by both Parties that explicitly refers to this Agreement.

SIGNED by the Participant in duplicate at Ames, Iowa

This 18th day of November 2007^{sc}

BioProtection Systems Corporation

Per Nicholas N. Vahanian

Nicholas N. Vahanian, M.D.
Chief Medical Officer,

SIGNED by the Public Health Agency of Canada in duplicate at Winnipeg, Manitoba

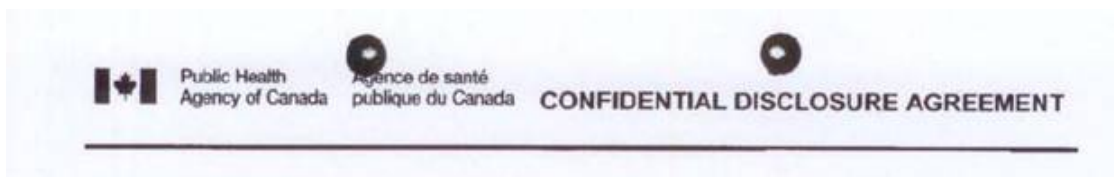
This 1 day of November 2007

Her Majesty the Queen in Right of Canada as Represented by the Minister of Health

Per: Frank A. Plummer

Frank A. Plummer, OC, MD, LL.D, FRCP (C), FRSC
Scientific Director General
National Microbiology Laboratory

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THE PARTIES ARE: Her Majesty the Queen in Right of Canada as represented by the Minister of Health (“Public Health Agency of Canada”)

Whose address is
National Microbiology Laboratory
Canadian Science Centre for Human and Animal Health Canada
1015 Arlington Street, Winnipeg, MB R3E 3R2, CANADA
(called “PHAC”) OF THE FIRST PART

AND: BioProtection Systems Corporation

Whose address is
Iowa State University Research Park, 2901 South Loop Drive,
Suite 3360, Ames Iowa 50010
(called the “Participant”) OF THE SECOND PART

Effective Date: May 1, 2007

In order to protect certain confidential information the Parties identified above, agree on terms about confidentiality which fairly protects both parties.

1. Disclosing Party: The party(ies) disclosing confidential information (“Disclosing Party”) is/are: Public Health Agency of Canada, National Microbiology Laboratory, 1015 Arlington Street, Winnipeg, MB R3E 3R2, and BioProtection Systems Corporation, 2901 South Loop Drive, Suite 3360, Ames, Iowa 50010.

2. Primary Representative. The representative(s) of each party for coordinating the disclosure and/or receipt of confidential information are: Dr. Heinz Feldmann and Dr. Dorothea Blandford and Dr. Nicholas Vahanian.

3. Description of Confidential Information: The subject matter of the confidential information disclosed under this Agreement is described as:
Public Health Agency of Canada: [*]
Participant: scientific and technical information relating to the pipeline products: business information.

4. Use of Confidential Information: The party receiving the confidential information (“Recipient”) shall keep the confidential information in strict confidence and shall make use of the confidential information only for the following purpose: to discuss scientific and business arrangements in view of negotiating a license agreement.

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5a. Standard of Care: Recipient shall protect the disclosed confidential information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the confidential information, as Recipient uses to protect its own confidential information of a like nature.

5b. In particular, and without limiting the generality of the foregoing, Recipient shall not copy, reproduce, divulge, publish or circulate (or permit anyone else to do so) any of the confidential information disclosed to it by the Disclosing Party, except to such of its employees [and/or contractors and

consultants] as may require access to the confidential information on a strict need-to-know basis for the uses contemplated in paragraph 4.

6 Markings: Recipient's obligations shall extend to confidential information that is described in paragraph 3, and that (a) if set out in written, graphical, photographic or other tangible form (including, without limitation thereto, machine readable object code), is marked "Confidential" or "Proprietary" by the Disclosing Party, or (b) if disclosed orally, is identified as confidential or proprietary at the time of disclosure and a written summary thereof marked "Confidential" or "Proprietary" is furnished by the Disclosing Party to Recipient within thirty (30) days after such oral disclosure.

7. Exclusions: This Agreement imposes no obligation upon Recipient with respect to information that: (a) was in Recipient's possession before receipt from the Disclosing Party; (b) is or becomes a matter of public knowledge through no fault of Recipient; (c) is rightfully received by Recipient from a third party without a duty of confidentiality; (d) is disclosed by the Disclosing Party to a third party without a duty of confidentiality on the third party; (e) is independently developed by Recipient; (f) is disclosed under operation of law, including the Access to information Act of Canada; or (g) is disclosed by Recipient with the Disclosing Party's prior written approval.

8. Warranty: Each Disclosing Party warrants that it has the right to make the disclosures under this Agreement.

NO OTHER WARRANTIES ARE MADE BY EITHER PARTY UNDER THIS AGREEMENT, ANY INFORMATION EXCHANGED UNDER THIS AGREEMENT IS PROVIDED "AS IS".

NEITHER PARTY PROVIDES ANY OTHER REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE OF ANY KIND WITH RESPECT TO THE CONFIDENTIAL INFORMATION IT DISCLOSES.

9a. Rights: Neither party acquires any intellectual property rights under this Agreement except the limited rights necessary to carry out the purposes set forth in paragraph 4. This Agreement shall not restrict reassignment of Recipient's employees.

9b. The obligations set out in paragraphs 4 and 5 above shall become effective with respect to any confidential information immediately upon its disclosure by the Disclosing Party to Recipient and shall continue for a period of three (3) years thereafter.

9c. The term of this Agreement shall commence on its effective date and remain in force for 18 months thereafter, except that the Agreement shall remain effective with respect to the confidential information disclosed under this Agreement for the remainder of any period of confidentiality pursuant to subparagraph 9b above.

9d. Upon request made by the Disclosing Party during the term of the Agreement, Recipient shall return the confidential information and all copies thereof to the Disclosing Party or, at the option of the Disclosing Party, destroy the confidential information and all copies thereof, and Recipient shall certify in writing within five (5) days of the receipt of the request from the Disclosing Party that it has complied with that request.

Miscellaneous

10. The only terms concerning confidentiality relating to the information described in paragraph 3 are in this Agreement and in the Access to Information Act of Canada.

11. This Agreement imposes no obligation on either party to purchase, sell, licence, transfer or otherwise dispose of any technology, services or products, and neither this Agreement nor the disclosure or receipt of confidential information under this Agreement constitutes or implies any undertaking or commitment by either party to enter into any further activity, arrangement or course of action with the other party or with any third party.

12. Both parties shall adhere to all applicable laws, regulations and rules relating to the export of technical data, and shall not export or re-export any technical data, any products received from the Disclosing Party, or the direct product of such technical data to any prescribed country listed in such applicable laws, regulations and rules unless properly authorized.

13. This Agreement does not create any agency or partnership relationship

14. This Agreement cannot be modified except by a document signed by both Parties that explicitly refers to this Agreement.

<p>SIGNED by the Participant in duplicate at Ames, Iowa</p> <p>This <u>30th</u> day of <u>April</u> 2007</p> <p>BioProtection Systems Corporation</p> <p>Per <u>Nicholas N. Vaharian</u></p> <p>Nicholas N. Vaharian, M.D. Chief Medical Officer,</p>	<p>SIGNED by the Public Health Agency of Canada in duplicate at Winnipeg, Manitoba</p> <p>This <u>27</u> day of <u>April</u> 2007</p> <p>Her Majesty the Queen in Right of Canada as Represented by the Minister of Health</p> <p>Per: <u>Frank A. Plummer</u></p> <p>Frank A Plummer, OC, MD, LLD, FRCP (C), FRSC Scientific Director General National Microbiology Laboratory</p>
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APPENDIX "C" BUSINESS PLAN
(TO FOLLOW WITHIN 30 DAYS OF EXECUTION)

APPENDIX "D" AFFILIATES

NewLink Genetics Corporation, 2901 South Loop Drive, Suite 3900, Ames, Iowa, USA 50010

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING	PAGE OF PAGES 1 33
2. CONTRACT (Proc. Inst. Ident.) NO. HDTRA1-09-C-0014		3. EFFECTIVE DATE 25 Sep 2009		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. SEE SCHEDULE	
5. ISSUED BY CODE DEFENSE THREAT REDUCTION AGENCY/BE-BC 8725 JOHN J. KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201		HDTRA1	6. ADMINISTERED BY (If other than Item 5) CODE S2401A DCMA TWIN CITIES B.H. WHIPPLE FEDERAL BLDG., RM 1150 FT. SNELLING MN 55111		
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code) BIOPROTECTION SYSTEMS CORPORATION DR. CHARLES LINK 2901 S LOOP DR STE 3360 AMES IA 50010-8646			8. DELIVERY [] FOB ORIGIN [X] OTHER (see below)		9. DISCOUNT FOR PROMPT PAYMENT
CODE 47EJ3			FACILITY CODE HDTRA1		10. SUBMIT INVOICES 1 ITEM 4 copies unless otherwise specified TO THE ADDRESS SHOWN IN:
11. SHIP TO/MARK FOR CODE DEFENSE THREAT REDUCTION AGENCY/RD-CBM SEE SEPARATE LETTER 8725 JOHN J KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201		HDTRA1	12. PAYMENT WILL BE MADE BY CODE HQ0339 DFAS COLUMBUS CENTER DFAS-COMWEST ENTITLEMENT OPERATIONS P.O. BOX 182381 COLUMBUS OH 43218-2381		
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: [] 10 U.S.C. 2304(c) () [] 41 U.S.C. 253(c) ()			14. ACCOUNTING AND APPROPRIATION DATA See Schedule		
15A. ITEM NO.	15B. SUPPLIES / SERVICES	15C. QUANTITY	15D. UNIT.	15E. UNIT PRICE	15F. AMOUNT
SEE SCHEDULE					
15G. TOTAL AMOUNT OF CONTRACT					\$3,707,837.00
16. TABLE OF CONTENTS					
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC DESCRIPTION PAGE(S)
PART I - THE SCHEDULE			PART II - CONTRACT CLAUSES		
X	A	SOLICITATION/CONTRACT FORM	1	X	I CONTRACT CLAUSES 15-32
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS	2-4	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS	
X	C	DESCRIPTION/SPECS./WORK STATEMENT	5	X	J LIST OF ATTACHMENTS 33
X	D	PACKAGING AND MARKING	6	PART IV - REPRESENTATIONS AND INSTRUCTIONS	
X	E	INSPECTION AND ACCEPTANCE	7		K REPRESENTATIONS CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS
X	F	DELIVERIES OR PERFORMANCE	8		L INSTRS. CONDS. AND NOTICES TO OFFERORS
X	G	CONTRACT ADMINISTRATION DATA	9-13		M EVALUATION FACTORS FOR AWARD
X	H	SPECIAL CONTRACT REQUIREMENTS	14		
CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE					
17. [X] CONTRACTOR'S NEGOTIATED AGREEMENT Contractor is required to sign (this document and return 1 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)			18. [] AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.		
19A. NAME AND TITLE OF SIGNER (Type or print) Carl Langren, Chief Financial Officer			20A. NAME AND TITLE OF CONTRACTING OFFICER ALYNNE FAUGHNAN / CONTRACT SPECIALIST TEL _____ EMAIL: alynn.Faughnan@dtra.mil		
19B. NAME OF CONTRACTOR By: /s/ Carl Langren (Signature of person authorized to sign)		19C. DATE SIGNED 9/21/09	20B. UNITED STATES OF AMERICA By: /s/Alynn Faughnan (Signature of Contracting Officer)		20C. DATE SIGNED 9-21-09

NSN 7540-01-152-8089

26-107

STANDARD FORM 26 (REV. 12/2002)

Previous edition is usable

GPO 1985 O - 469-794

Prescribed by GSA
PAR (48 CFR) 53.214(a)

Section B - Supplies or Services and Prices

BAA REFERENCE

This contract is awarded as a result of Solicitation HDTRA1-07-RDINO-BAA, Broad Agency Announcement.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Base Period CPFF		Lot		\$ 3,707,837.00

In accordance with Statement of Work entitled "aGal Adjuvant Technology for Biodefense Agents," dated March 15, 2009 as attachment number one.

FOB: Destination

PURCHASE REQUEST NUMBER: CBS080011915

ESTIMATED COST	\$	3,408,767.00
FIXED FEE	\$	299,070.00
TOTAL EST COST + FEE	\$	3,707,837.00

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
000101	Base Period Funding				\$ 0.00
	CPFF				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: CBS080011915				
				ESTIMATED COST	\$ 0.00
				FIXED FEE	\$ 0.00
				TOTAL EST COST + FEE	\$ 0.00
	ACRN AA				\$ 1,429,820.00
	CIN: CBS080011915000101				

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<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
000102	Base Period Funding				\$ 0.00
	CPFF				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: CBM09001379				
				ESTIMATED COST	\$ 0.00
				FIXED FEE	\$ 0.00
				TOTAL EST COST + FEE	\$ 0.00
	ACRN AB				\$ 2,278,017.00
	CIN: CBM090013719000102				

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
0002	Contract Data Requirements List				NSP
	CPFF				
	CDRLS IAW attachment 1				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: CBS080011915				
				ESTIMATED COST	\$ 0.00
				FIXED FEE	\$ 0.00
				TOTAL EST COST + FEE	\$ 0.00

See Exhibit A

<u>ITEM NO</u>	<u>SUPPLIES/SERVICES</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
0003	Option Year One		Lot		\$ 6,891,784.00
OPTION	CPFF				
	FOB: Destination				
				ESTIMATED COST	\$ 6,705,742.00
				FIXED FEE	\$ 186,042.00
				TOTAL EST COST + FEE	\$ 6,891,784.00

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Section C - Descriptions and Specifications

CLAUSES INCORPORATED BY FULL TEXT

252.211-9000 Description/Specifications/Work Statement

The Contractor shall provide the supplies and/or services set forth in Section B, in accordance with the following:

- a. Statement of Work entitled "aGal adjuvant Technology for Biodefense Agents", Dated March 15, 2009, Attachment 1 to the Contract.
- b. Contract Data Requirements List (DD Form 1423), Exhibit A to the Contract.

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Section D - Packaging and Marking

CLAUSES INCORPORATED BY FULL TEXT

252.247-9001 PACKAGING AND MARKING

(a) All data contained in Exhibit A, Contract Data Requirements List (CDRL), DD Form 1423 delivered under this contract shall be delivered using best commercial practices to meet the packaging requirements of the carrier and to insure delivery, to the addressees specified on the Data Item Cover Sheet, at destination and in accordance with applicable security requirements.

(b) All data and correspondence submitted to the Contracting Officer shall reference the Contract Number, the CDRL number, and the date submitted. A copy of all correspondence sent to the Contracting Officer's Representative (COR) or Project Manager shall be simultaneously provided to the Contracting Officer.

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government
000101	Destination	Government	Destination	Government
000102	Destination	Government	Destination	Government
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government

CLAUSES INCORPORATED BY FULL TEXT

252.246-9000 INSPECTION AND ACCEPTANCE (JUL 2007)

Government inspection and acceptance of data is specified on the Contract Data Requirements List, DD Form 1423. In accordance with FAR 52.246-9, inspection and acceptance for all work performed at any and all times under this contract shall be the responsibility of the:

x Contracting Officer's Representative (COR) or Project Manager (PM). The Wide Area Work Flow (WAWF) Acceptor DoDDAC is located in DTRA 252.201-9000 *Project Manager* or DTRA 252.201-9002 *Contracting Officer's Representative*.

o Administrative Contracting Officer (ACO). The WAWF Acceptor DoDAAC can be found in the "Administered By" block on page 1 of the contract.

(End of Clause)

Section F - Deliveries or Performance

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	POP 25-SEP-2009 TO 24-SEP-2011	N/A	DEFENSE THREAT REDUCTION AGENCY/RD-CBM SEE SEPARATE LETTER 8725 JOHN J KINGMAN ROAD, MAIL STOP 6201, FORT BELVOIR VA 22060 FOB: Destination	HDTRA1
000101	N/A	N/A	N/A	N/A
000102	N/A	N/A	N/A	N/A
0002	POP 25-SEP-2009 TO 24-SEP-2012	N/A	DEFENSE THREAT REDUCTION AGENCY/RD-CBM SEE SEPARATE LETTER 8725 JOHN J KINGMAN ROAD, MAIL STOP 6201, FORT BELVOIR VA 22060 FOB: Destination	HDTRA1

CLAUSES INCORPORATED BY REFERENCE

52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.247-34	F.O.B. Destination	NOV 1991

Section G - Contract Administration Data

ADMINISTRATION

ASSIGNMENT OF CONTRACT ADMINISTRATION SERVICES (CAS)
FUNCTIONS (AUG 2007)

- a. The contract administration functions stated in FAR 42.302(a) are assigned to:
See Section A, Block 6.
- b. Notwithstanding that assignment, in accordance with FAR 42.202(b)(2), the following functions are determined to be best performed by the PCO and are retained by the DTRA Contracting Office:
 - (1) FAR 42.302(a)(3) Conduct postaward orientation conferences.
 - (2) FAR 42.302(a)(20) Perform Postaward Security Administration.
 - (3) FAR 42.302(a)(40) Perform engineering surveillance to assess compliance with contractual terms for schedule, cost, and technical performance in the areas of design, development, and production.
 - (4) FAR 42.302(a)(51) In accordance with FAR 52.244-2, consent to the placement of subcontracts which have experimental, developmental, or research work as one of its purposes.
 - (5) Approval or disapproval of the data items listed on Exhibit A, DD Form 1423, Contract Data Requirements List.

(END OF CLAUSE)

ACCOUNTING AND APPROPRIATION DATA

AA: 9780400.2620 1000 B62D 255999 BD27846000 S49012
AMOUNT: \$1,429,820.00
CIN CBS080011915000101: \$1,429,820.00

AB: 9790400.2620 1000 B62D 255999 BD29356000 S49012
AMOUNT: \$2,278,017.00
CIN CBM090013719000102: \$2,278,017.00

CLAUSES INCORPORATED BY FULL TEXT

252.201-9002 CONTRACTING OFFICER'S REPRESENTATIVE (MAY 2007)

- a. The Contracting Officer's Representative (COR) for this contract is:

x **SEE SEPARATE LETTER**
Defense Threat Reduction Agency/
8725 John J. Kingman Rd, MS 6201
Fort Belvoir VA 22060-6201
Telephone number (703)
e-mail address @dtra.mil.
WAWF Acceptor DoDAAC: HDTRA1

Defense Threat Reduction Agency/
1680 Texas St SE
Kirtland AFB NM 87117-5669
Telephone number (505) -
e-mail address @abq.dtra.mil.
WAWF Acceptor DoDAAC: HDTRA2

- b. The COR will act as the Contracting Officer's Representative for technical matters providing technical direction and discussion as necessary with respect to the specification/statement of work and monitoring the progress and quality of the Contractor's performance. The COR is NOT an Administrative

Contracting Officer (ACO) and does not have the authority to take any action, either directly or indirectly that would change the pricing, quality, quantity, place of performance, delivery schedule, or any other terms and conditions of the contract, or to direct the accomplishment of effort, which goes beyond the scope of the specifications/statement of work in the contract.

c. When, in the opinion of the contractor, the COR requests effort outside the existing scope of the contract, the contractor shall promptly notify the Contracting Officer in writing. No action shall be taken by the contractor under such direction until the Contracting Officer has issued a modification to the contract or has otherwise resolved the issue.

CLAUSES INCORPORATED BY FULL TEXT

252.204-9002 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (AUG 2007)

In accordance with DFARS 204.7108 *Payment Instructions*, payment shall be made by the numbered payment instruction identified below:

- o (1) *Line item specific: single funding*. If there is only one source of funding for the contract line item (i.e., one ACRN), the payment office will make payment using the ACRN funding of the line item being billed.
- o (2) *Line item specific: sequential ACRN order*. If there is more than one ACRN within a contract line item, the payment office will make payment in sequential ACRN order within the line item, exhausting all funds in the previous ACRN before paying from the next ACRN using the following sequential order: Alpha/Alpha; Alpha/Numeric; Numeric/Alpha; and Numeric/Numeric.
- o (3) *Line item specific: contracting officer specified ACRN order*. If there is more than one ACRN within a contract line item, the payment office will make payment within the line item in the sequence

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ACRN order specified by the contracting officer, exhausting all funds in the previous ACRN before paying from the next ACRN.

- x (4) *Line item specific: by fiscal year*. If there is more than one ACRN within a contract line item, the payment office will make payment using the oldest fiscal year appropriations first, exhausting all funds in the previous fiscal year before disbursing from the next fiscal year. In the event there is more than one ACRN associated with the same fiscal year, the payment amount shall be disbursed from each ACRN within a fiscal year in the same proportion as the amount of funding obligated for each ACRN within the fiscal year.
- o (5) *Line item specific: by cancellation date*. If there is more than one ACRN within a contract line item, the payment office will make payment using the ACRN with the earliest cancellation date first, exhausting all funds in that ACRN before disbursing funds from the next. In the event there is more than one ACRN associated with the same cancellation date, the payment amount shall be disbursed from each ACRN with the same cancellation date in the same proportion as the amount of funding obligated for each ACRN with the same cancellation date.
- o (6) *Line item specific: proration*. If there is more than one ACRN within a contract line item, the payment office will make payment from each ACRN in the same proportion as the amount of funding currently unliquidated for each ACRN.
- o (7) *Contract-wide: sequential ACRN order*. The payment office will make payment in sequential ACRN order within the contract or order, exhausting all funds in the previous ACRN before paying from the next ACRN using the following sequential order: alpha/alpha; alpha/numeric; numeric/alpha; and numeric/numeric.
- o (8) *Contract-wide: contracting officer specified ACRN order*. The payment office will make payment in sequential ACRN order within the contract or order, exhausting all funds in the previous ACRN before paying from the next ACRN in the sequence order specified by the contracting officer.
- o (9) *Contract-wide: by fiscal year*. The payment office will make payment using the oldest fiscal year appropriations first, exhausting all funds in the previous fiscal year before disbursing from the next fiscal year. In the event there is more than one ACRN associated with the same fiscal year, the payment amount shall be disbursed from each ACRN within a fiscal year in the same proportion as the amount of funding obligated for each ACRN within the fiscal year.
- o (10) *Contract-wide: by cancellation date*. The payment office will make payment using the ACRN with the earliest cancellation date first, exhausting all funds in that ACRN before disbursing funds from the next. In the event there is more than one ACRN associated with the same cancellation date, the payment amount shall be disbursed from each ACRN with the same cancellation date in the same proportion as the amount of funding obligated for each ACRN with the same cancellation date.
- o (11) *Contract-wide: proration*. The payment office will make payment from each ACRN within the contract or order in the same proportion as the amount of funding currently unliquidated for each ACRN.
- o (12) *Other*. If none of the standard payment instructions identified in paragraphs (d)(1) through (11) of this section are appropriate, the contracting officer may insert other payment instructions, provided the other payment instructions—
 - (i) Provide a significantly better reflection of how funds will be expended in support of contract performance; and
 - (ii) Are agreed to by the payment office and the contract administration office.

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CLAUSES INCORPORATED BY FULL TEXT

252.232-9007 PAYMENT INFORMATION IN CENTRAL CONTRACTOR REGISTRATION (CCR) DATABASE

This contract contains FAR clause 52.204-7, Central Contractor Registration. All contractors must be registered in the CCR database prior to award, during performance, and through final payment of any contract, except for awards to foreign vendors for work to be performed outside the United States.

The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. In addition to the contractor's requirement to confirm on an annual basis that its information in the CCR database is accurate and complete, the contractor's information in the CCR database must be updated whenever changes occur to the contractor's remit-to data (e.g., account number, vendor name and address, etc.) and the paying office notified of any changes. The contractor's failure to maintain accurate information in the CCR database could result in payment delays for which the Government shall not be liable.

CLAUSES INCORPORATED BY FULL TEXT

252.232-9012 WIDE AREA WORK FLOW (WAWF) — RECEIPT AND ACCEPTANCE (RA) INSTRUCTIONS (December 2007)

(a) As prescribed in DFARS clause 252.232-7003 Electronic. Submission of Payment Requests (Jan 2004), Contractors must submit payment requests in electronic form. Paper copies will no longer be accepted or processed for payment unless the conditions of DFARS clause 252.232-7003(c) apply. To facilitate this electronic submission, the Defense Threat Reduction Agency (DTRA) has implemented the DoD sanctioned Wide Area Workflow-Receipt and Acceptance (WAWF-RA) for contractors to submit electronic payment requests and receiving reports. The contractor shall submit electronic payment requests and receiving reports via WAWF-RA. **Vendors shall send an email notification to the Contracting Officer Representative (COR), Program/Project Manager or other government acceptance official identified in the contract by clicking on the Send More Email Notification link upon submission of an invoice/cost voucher in WAWF-RA. To access WAWF, go to <https://wawf.eb.mil/>.**

**** For questions, contact the DTRA WAWF Team at 703-767-6840 or wawfhelp@dtra.mil ****

(b) Definitions:

Acceptor: Contracting Officer's Representative, Program/Project Manager, or other government acceptance official as identified in the contract/order.

Pay Official: Defense Finance and Accounting Service (DFAS) payment office identified in the contract/order.

SHIP To/Service Acceptor DoDAAC: Acceptor DoDAAC or DCMA DoDAAC (as specified in the contract/order).

DCAA Auditor DoDAAC: Needed when invoicing on cost-reimbursable contracts. (Go to www.dcaa.mil and click on the appropriate link under the Audit Office Locator to search for your DCAA DoDAAC.)

>>> For contracts that are administered by the Office of Naval Research (ONR): <<<
Enter the ONR DoDAAC in the DCAA Auditor DoDAAC field in WAWF.

(c) WAWF Contractor Input Information:

The contractor shall use the following information in creating electronic payment requests in WAWF:

Invoice Type in WAWF:

- If billing for Cost Type/Reimbursable contracts (including T&M and LH), select "Cost Voucher"
- If billing for Firm-Fixed Price Materials Only, select "Combo"
- If billing for Firm-Fixed Price Materials and Service, select "Combo"
- If billing for Firm-Fixed Price Services Only, select "2-n-1 (Services Only)"

For WAWF Routing Information, See Table Below:

Description	SF 26	SF 33	SF 1449	DD 1155
	Located in Block/Section			
Contract Number	2	2	2	1
Delivery Order	See Individual Order		4	2
CAGE Code	7	15a	17a	9
Pay DoDAAC	12	25	18a	15
Inspection	Section E (except SF 1449, See Entitled): INSPECTION AND ACCEPTANCE			
Acceptance	Section E (except SF 1449, See Entitled): INSPECTION AND ACCEPTANCE			
Issue Date	3	5	3	3
Issue by DoDAAC	5	7	9	6
Admin DoDAAC	6	24	16	7
Ship To / Service Acceptor DoDAAC	6	24	16	7
Ship to Extension	Do Not Fill In			
Services or Supplies	Based on majority of requirement as determined by monetary value			
Final Invoice?	Do not change "N" (no) to "Y" (yes) unless this is the last invoice and the contract is ready for closeout.			

(d) Final Invoices/Vouchers -Final Payment shall be made in accordance with the Federal Acquisition Regulation (FAR) 52.216-7, entitled "Allowable Cost and Payment."

Invoices - Invoice 2-n-1 (Services Only) and Invoice and Receiving Report (Combo)

Select the “Y” selection from the “**Final Invoice?**” drop-down box when submitting the final invoice for payment for a contract. Upon successful submission of the final invoice, click on the **Send More Email Notifications** link to send an additional email notification to the Contracting Officer Representative (COR), Program/Project Manager or other government acceptance official identified in the contract.

Cost Vouchers - Once the final DCAA audit is complete for cost reimbursable contracts and authorization is received to submit the final cost voucher, select the “Y” selection from the “**Final Voucher?**” drop-down box when submitting the final cost voucher. Upon successful submission of the final cost voucher, click on the **Send More Email Notifications** link to send an additional email notification to the following email address: finalcostvouchers@dtra.mil

(e) WAWF Training may be accessed online at <http://www.wawftraining.com/>. To practice creating documents in WAWF, visit practice site at <https://wawftraining.eb.mil/>. General DFAS information may be accessed using the DFAS website at <http://www.dod.mil/dfas/>. Payment status information may be accessed using the myInvoice system at <https://myinvoice.csd.disa.mil/> or by calling the DFAS Columbus

helpdesk at 800-756-4571. (Select Option 1) Your contract number and shipment/invoice number will be required to check status of your payment. **Note: For specific invoice related inquiries email: wawfvendorpay@dtra.mil. Vendors shall forward any additional DTRA related WAWF questions to wawfhelp@dtra.mil.**

Section H - Special Contract Requirements

H.1 PATENT RIGHTS
RETENTION BY THE CONTRACTOR

In accordance with FAR 52.227-11 (f), reporting on utilization of subject inventions:

The Contractor agrees to submit, periodic reports annually on the utilization of a subject invention or efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees.

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	SEP 2007
52.203-13	Contractor Code of Business Ethics and Conduct	DEC 2007
52.203-14	Display of Hotline Poster(s)	DEC 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	APR 2008
52.209-6	Protecting the Government’s Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.215-2	Audit and Records—Negotiation	JUN 1999
52.215-8	Order of Precedence—Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	OCT 2004
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	JUL 2005
52.215-19	Notification of Ownership Changes	OCT 1997
52.216-7	Allowable Cost And Payment	DEC 2002
52.216-8	Fixed Fee	MAR 1997
52.217-9	Option To Extend The Term Of The Contract	MAR 2000
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.219-28	Post-Award Small Business Program Rerepresentation	JUN 2007
52.222-3	Convict Labor	JUN 2003
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	SEPT 2006
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998

52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	SEPT 2006
52.222-39	Notification of Employee Rights Concerning Payment of Union Dues or Fees	DEC 2004
52.222-50	Combating Trafficking in Persons	AUG 2007
52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.227-11 Alt II	Patent Rights—Ownership by the Contractor (Dec 2007) — Alternate II	DEC 2007
52.228-7	Insurance—Liability To Third Persons	MAR 1996
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	JUN 1996

52.232-20	Limitation Of Cost	APR 1984
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25 Alt I	Prompt Payment (Oct 2003) Alternate I	FEB 2002
52.232-33	Payment by Electronic Funds Transfer—Central Contractor Registration	OCT 2003
52.233-1 Alt I	Disputes (Jul 2002) - Alternate I	DEC 1991
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.243-2 Alt V	Changes—Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.244-2	Subcontracts	JUN 2007
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	MAR 2007
52.245-1	Government Property	JUN 2007
52.245-9	Use And Charges	JUN 2007
52.246-9	Inspection Of Research And Development (Short Form)	APR 1984
52.246-25	Limitation Of Liability—Services	FEB 1997
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.251-1	Government Supply Sources	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	JAN 2009
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2004
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Central Contractor Registration (52.204-7) Alternate A	SEP 2007
252.204-7009	Requirements Regarding Potential Access to Export-Controlled Items	JUL 2008
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.211-7007	Reporting of Government-Furnished Equipment in the DoD Item Unique Identification (IUID) Registry	NOV 2008
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.215-7004	Excessive Pass-Through Charges	MAY 2008
252.225-7006	Quarterly Reporting of Actual Contract Performance Outside the United States	MAY 2007
252.225-7012	Preference For Certain Domestic Commodities	MAR 2008
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.227-7013	Rights in Technical Data—Noncommercial Items	NOV 1995
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7025	Limitations on the Use or Disclosure of Government- Furnished Information Marked with Restrictive Legends	JUN 1995
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7030	Technical Data—Withholding Of Payment	MAR 2000
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.227-7039	Patents—Reporting Of Subject Inventions	APR 1990
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008

252.232-7010	Levies on Contract Payments	DEC 2006
252.235-7002	Animal Welfare	DEC 1991
252.235-7010	Acknowledgment of Support and Disclaimer	MAY 1995
252.235-7011	Final Scientific or Technical Report	NOV 2004

252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	JAN 2007
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000
252.251-7000	Ordering From Government Supply Sources	NOV 2004

CLAUSES INCORPORATED BY FULL TEXT

52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor on or before the expiration of the contract basic period. The Government will give the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 36-Months.

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

- (a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0.00 or the overtime premium is paid for work —
- (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;
 - (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
 - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
 - (4) That will result in lower overall costs to the Government.
- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall—

- (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;
- (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;
- (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and
- (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either “zero” or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a) (4) of the clause.

(End of clause)

52.249-14 EXCUSABLE DELAYS (APR 1984)

- (a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. “Default” includes failure to make progress in the work so as to endanger performance.
- (b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless—
- (1) The subcontracted supplies or services were obtainable from other sources;
 - (2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and
 - (3) The Contractor failed to comply reasonably with this order.
- (c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the

termination clause of this contract.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://farsite.hill.af.mil/>

(End of clause)

252.201-9003 LIMITATION OF AUTHORITY

No person in the Government, other than a Contracting Officer, has the authority to provide direction to the Contractor, which alters the Contractor's obligations or changes this contract in any way. If any person representing the Government, other than a Contracting Officer, attempts to alter contract obligations, change the contract specifications/statement of work or tells the contractor to perform some effort which the Contractor believes to be outside the scope of this contract, the Contractor shall immediately notify the Procuring Contracting Officer (PCO). Contractor personnel shall not comply with any order or direction which they believe to be outside the scope of this contract unless the order or direction is issued by a Contracting Officer.

252.203-9004 ETIOLOGIC AGENTS — BIOLOGICAL DEFENSE RESEARCH PROGRAM (FEB 2008)

- a. For purpose of this contract etiologic agent—biological defense program is defined as: any viable microorganism, or its toxin which causes or may cause human disease, including those agents listed in 42 CFR 73, 9 CFR 121, and 7 CFR 331, of the Department of Health and Human Services and Department of Agriculture regulations, respectively, and any agent of biological origin that poses a degree of hazard to those agents and is further identified by the US Army. The contractor shall comply with the following when working with etiologic agents:
 - (1) 29 Code of Federal Regulations 1910, Occupational Health and Safety;
 - (2) US Department of Health and Human Services (DHHS) and US Department of Agriculture, Select Agent Program(s), 42 CFR 73, 9 CFR 121, and 7 CFR 331; and
 - (3) DHHS Publication No. 93-8395, Biosafety in Microbiological and Biomedical Laboratories, latest edition.
- b. Etiologic agents shall be packaged, labeled, shipped, and transported in accordance with applicable Federal, State, and local laws and regulations, to include:
 - (1) 42 CFR 72 (Interstate Shipment of Etiologic Agents);
 - (2) 49 CFR 172 and 173 (Department of Transportation);
 - (3) 9 CFR 122 (USDA Restricted Animal Pathogens);
 - (4) International Air Transport Association Dangerous Goods Regulations;
 - (5) The United States Postal Service shall not be used for transportation of BDRP related etiologic agents; and
 - (6) If performance is outside of the United States, any additional procedures required by the nation where the work is to be performed.

252.204-9004 IMPLEMENTATION OF DISCLOSURE OF INFORMATION (JUN 2007)

In accordance with DFARS 252.204-7000 Disclosure of Information, any information to be released shall be submitted at least 45 days before the proposed release date, for security and policy review. Submit one copy to each below:

- (a) Office of Public Affairs, DTRA/DIR/COS/PA, 8725 John J. Kingman Dr, MS 6201, Ft Belvoir VA 22060-6201.
- (b) Contracting Officer
- (c) Program Manager
- (d) Task Order Manager

(End of Clause)

252.209-9002 NON-GOVERNMENT SUPPORT PERSONNEL (JAN 2008)

The following companies may have access to contractor information, technical data or computer software that may be marked as proprietary or otherwise marked with restrictive legends: Suntiva LLC (Formerly C-Systems International Corporation)(contract specialist support); Systems Research and Analysis (SRA, managing JPRAS)and The Tauri Group (Advisory and Assistance Services). Each contract contains organizational conflict of interest provisions and/or includes contractual requirements for non-disclosure of proprietary contractor information or data/software marked with restrictive legends. The contractor, by submitting a proposal or entering into this contract, is deemed to have consented to the disclosure of its information to Suntiva LLC, SRA, and The Tauri Group under the conditions and limitations described herein.

252.215-9004 KEY PERSONNEL (FEB 2000)

The personnel listed below are considered essential to the work being performed hereunder. Prior to removing, replacing, or diverting any of the specified individuals, the Contractor shall notify the Contracting Officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this Contract. No deviation shall be made by the Contractor without the prior written consent of the

Contracting Officer; provided, that the Contracting Officer may ratify in writing the change, such ratification shall constitute the consent of the Contracting Officer required by this paragraph. The personnel listed below may, with the consent of the contracting parties, be amended from time to time during the course of the Contract to either add or delete personnel as appropriate.

Principal Investigator

252.216-9003 CONSULTANTS (OCT 1998)

Services of consultants shall be at rates and for periods approved in advance by the Contracting Officer. Requests for approval shall be submitted to the Contracting Officer sufficiently in advance of the need to use a consultant under this Contract. The request shall include (a) a copy of the proposed consultant agreement, (b) a brief biography of the consultant, and (c) an indication of the area(s) in which consultant's expertise will be utilized and why it is essential for contract performance. In addition, significant deviations from the dollar amount approved for consultant services, or changes in the

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consultants to be utilized, must likewise be approved in advance upon submission of adequate justification.

252.227-7013 RIGHTS IN TECHNICAL DATA—NONCOMMERCIAL ITEMS. (NOV 1995)

(a) Definitions. As used in this clause:

(1) Computer data base means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) Computer program means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.

(3) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) Computer software documentation means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) Detailed manufacturing or process data means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.

(6) Developed means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(7) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at government, private, or mixed expense.

(8) Developed exclusively with government funds means development was not accomplished exclusively or partially at private expense.

(9) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contract.

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(10) Form, fit, and function data means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(11) Government purpose means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(12) Government purpose rights means the rights to—

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

(13) Limited rights means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is —

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iv) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(14) Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(15) Unlimited rights means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

(b) Rights in technical data. The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentation):

(1) Unlimited rights.

The Government shall have unlimited rights in technical data that are—

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with —

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired; or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) Government purpose rights.

(i) The Government shall have government purpose rights for a five-year period, or such other period as may be negotiated, in technical data—

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(ii) and (b)(iv) through (b)(ix) of this clause; or

(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The five-year period, or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless-

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) Limited rights.

(i) Except as provided in paragraphs (b)(1)(ii) and (b)(1)(iv) through (b)(1)(ix) of this clause, the Government shall have limited rights in technical data—

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause; or

(B) Created exclusively at private expense in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(4) Specifically negotiated license rights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose rights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished, or provided with the pre-existing rights, unless—

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees to release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated under paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely from the party who has improperly used, modified, reproduced, released, performed, displayed, or disclosed Contractor data marked with restrictive legends.

(c) Contractor rights in technical data. All rights not granted to the Government are retained by the Contractor.

(d) Third party copyrighted data. The Contractor shall not, without the written approval of the Contracting Officer, incorporate any copyrighted data in the technical data to be delivered under this contract unless the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or licenses in the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(e) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure. (1) This paragraph does not apply to restrictions based solely on copyright.

(2) Except as provided in paragraph (e)(3) of this clause, technical data that the Contractor asserts should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (the Attachment). The Contractor shall not deliver any data with restrictive markings

unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision. Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the following format, and signed by an official authorized to contractually obligate the Contractor: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted—

Technical data to be Furnished With Restrictions (1)	Basis for Assertion (2)	Asserted Rights Category (3)	Name of Person Asserting Restrictions (4)
(LIST)	(LIST)	(LIST)	(LIST)

(1) If the assertion is applicable to items, components or processes developed at private expense, identify both the data and each such items, component, or process.

(2) Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or

disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.

(3) Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).

(4) Corporation, individual, or other person, as appropriate.

Date _____

Printed Name and Title _____

Signature _____

(End of identification and assertion)

(4) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves the right to add the Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(f) Marking requirements. The Contractor, and its subcontractors or suppliers, may only assert restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (f)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause; the limited rights legend at paragraph (f)(3) of this clause; or the special license rights legend at paragraph (f)(4) of this clause; and/or a notice of copyright as prescribed under 17 U.S.C. 401 or 402.

(1) General marking instructions. The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions. Reproductions of technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings. Data delivered or otherwise furnished to the Government purpose rights shall be marked as follows:

Government Purpose Rights

Contract No.

Contractor Name

Contractor Address

Expiration Date

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data—Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(3) Limited rights markings. Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

Limited Rights

Contract No.

Contractor Name

Contractor Address

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in ,Technical Data—Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above named Contractor.

(End of legend)

(4) Special license rights markings. (i) Data in which the Government's rights stem from a specifically negotiated license shall be marked with the following legend:

Special License Rights

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. (Insert contract number) , License No. (Insert license identifier) . Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(5) of this clause).

(5) Pre-existing data markings. If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (f) (1) of this clause shall be followed.

(g) Contractor procedures and records. Throughout performance of this contract, the Contractor and its subcontractors or suppliers that will deliver technical data with other than unlimited rights, shall—

(1) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause; and

(2) Maintain records sufficient to justify the validity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings. (1) Unjustified technical data markings. The rights and obligations of the parties regarding the validation of restrictive markings on technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings. A nonconforming marking is a marking placed on technical data delivered or otherwise furnished to the Government under this contract that is not in the format authorized by this contract. Correction of nonconforming markings is not subject to the validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking and the Contractor fails to remove or correct such marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(i) Relation to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

(j) Limitation on charges for rights in technical data. (1) The Contractor shall not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when—

(i) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph (j)(1) of this clause—

(i) Includes costs charged by a subcontractor or supplier, at any tier, or costs incurred by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers. (1) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under 10 U.S.C. 2320, 10 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) Whenever any technical data for noncommercial items is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause in the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so,

without alteration, except to identify the parties. No other clause shall be used to enlarge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the next higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers. (5) In no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligations to the Government.

(End of clause)

252.227-9000 COMPUTER CODE DEVELOPMENT (OCT 1998)

Computer code development (the writing of a new computer program or the enhancement of an existing program to expand its capabilities) even if not explicitly specified in the Tasks of the SOW, shall be accompanied by a report which will be a brief summary describing the software, associated machine requirements and development and documentation status of each Computer Code for DTRA to determine the applicability of the Computer program to specific research programs.

252.235-9000 SOURCES OF INFORMATION (JULY 2000)

a. The results of the research to be delivered to the Government under this Contract shall embody the most recent reliable information in the field which is available to the Contractor from private and governmental sources, and the Contractor agrees to utilize all sources of such information available to it. In this connection, information in this field which is in the control of DTRA shall, with the consent of the Contracting Officer's Representative (COR) and under such safeguards and procedures as he/she may prescribe, be made available to the Contractor on request. Additionally, the Contractor is encouraged to make use of the resources available through the Defense Threat Reduction Information Analysis Center (DTRIAC), 1680 Texas Street, Southeast, Kirtland AFB, New Mexico 87117.

b. Reasonable assistance in obtaining access to information, or in obtaining permission to use Government or private facilities, will be given to the Contractor by DTRA. Specifically, the Contractor must register with the Defense Technical Information Center, ATTN: DTIC, 8725 John J. Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218, in accordance with Defense Logistics Agency (DLA) Regulation 4185.10, Certification and Registration for Access to DoD Defense Technical Information. DD Form 1540, the registration form, shall be forwarded to the DTRA Contracting Officer for approval (DFARS 35.010(b)).

(End of clause)

252.227-9000 PROHIBITION OF USE OF LABORATORY ANIMALS (OCT 2008)(DTRA)

No animal studies may be conducted using DOD funds until Animal Care and Use Review Office (ACURO) approval has been granted. Studies involving non human primates, dogs, cats, or marine mammals will require a site visit by a DoD laboratory animal veterinarian. The recipient (including subcontractors) is expressly forbidden to use laboratory animals in any manner whatsoever without the express written approval of the US Army Medical Research and Materiel Command (MRMC), Animal Care and Use Review Office (ACURO). You must complete the ACURO Animal Use Appendix for Research Involving Animals found at the following web site: <https://mrmc-www.army.mil/AnimalAppendix.asp>.

Please submit the completed ACURO appendix, contact information, the DTRA contract number and a copy of the contract for processing to the email address listed at the ACURO website for processing. You will receive written approval to begin research under the applicable protocol proposed for this award from the US Army MRMC ACURO under separate email to the recipient and Principal Investigator. A copy of this approval will be provided to the Defense Threat Reduction Agency (DTRA) for the official file. Non-compliance with any provision of this clause may result in the termination of the award.

(End of Clause)

252.235-9001 PROHIBITION OF USE OF LABORATORY ANIMALS (OCT 2008)(DTRA)

No animal studies may be conducted using DOD funds until Animal Care and Use Review Office (ACURO) approval has been granted. Studies involving non human primates, dogs, cats, or marine mammals will require a site visit by a DoD laboratory animal veterinarian. The recipient (including subcontractors) is expressly forbidden to use laboratory animals in any manner whatsoever without the express written approval of the US Army Medical Research and Material Command (MRMC), Animal Care and Use Review Office (ACURO). You must complete the ACURO Animal Use Appendix for Research Involving Animals found at the following web site: <https://mrmc-www.army.mil/AnimalAppendix.asp>. Please submit the completed ACURO appendix, contact information, the DTRA contract number and a copy of the contract for processing to the email address listed at the ACURO website for processing. You will receive written approval to begin research under the applicable protocol proposed for this award from the US Army MRMC ACURO under separate email to the recipient and Principal Investigator. A copy of this approval will be provided to the Defense Threat Reduction Agency (DTRA) for the official file. Non-compliance with any provision of this clause may result in the termination of the award.

252.242-9000 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING SYSTEM (CPARS) (NOV 2002)

1. As required by FAR Parts 42 and 15, and DTRA policy for the Contractor Performance Assessment Reporting System (CPARS) and Past Performance Information Retrieval System (PPIRS), formerly known as PPAIS, effective July, 2001, the Government shall complete a CPAR each year of the period of performance of this contract. The contractor will have an opportunity to provide their comments in each CPAR before it is completed. In accordance with DTRA CPARS policy the completed CPARS will be entered into PPIRS, a retrieval system for Government source selection teams to access the CPARS of contractor's performance. The DTRA CPARS and PPIRS policy includes an explanation of the process and procedures that will be utilized under this contract. A copy is available for contractor reference via the DTRAlink (www.dtra.mil) by accessing Acquisition, Doing Business With Us.

2. The CPARS shall occur annually in accordance with the schedule established below:

(i) Initial CPAR: 12 months after contract start date (date performance begins) TBD (by PCO)

(ii) Interim CPAR(s) will be performed annually on the anniversary of the contract start date according to the following schedule: TBD (by PCO)

(iii) A Final CPAR will be completed upon contract termination, transfer of program management/contract management responsibility outside of DTRA, the delivery of the final end item on contract and/or the completion of the performance period.

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(iv) An Out-of-Cycle CPAR may be required when there is a significant change in performance that alters the assessment in one or more evaluation area(s). An Out-of-Cycle CPAR is optional and shall be processed in accordance with DTRA CPARS policy referenced in paragraph 1. above.

3. Each CPAR shall only cover the period elapsing from the last annual CPAR. The final CPAR shall not be used to summarize or "roll-up" the contractor's performance under the entire contract. Each annual CPAR and the final CPAR together will comprise a total picture of contractor performance.

4. At the request of the Government, a verbal, informal review of the Contractor's performance may be held 3-6 months before the completion of the Interim or Final Evaluation periods. This review entails discussing any problems or areas of concern regarding the Contractor's performance to date. No written evaluation form or other formal documentation is required for this evaluation. It may be conducted with the Contractor by telephone, teleconference or face-to-face. This is designed to offer the Contractor an opportunity to correct known deficiencies or weaknesses prior to the formal written evaluation.

5. As set forth in DTRA CPARS policy, any disagreements between the Contractor and the Program Manager regarding the CPAR(s) that cannot be resolved shall be reviewed by the designated Reviewing Official prior to completion of the CPAR.

6. Special Requirements for Indefinite Delivery Contracts (IDIQ and Requirements type), CPARS shall be processed (select one)

for all existing orders (combined) at the time the CPAR is processed

on an order-by-order basis

on a grouped order basis

7. The policy and procedures set forth in this clause and DTRA CPARS policy are not subject to "Disputes" as described in FAR Part 33.

252.245-9000 Government Property (AUG 2009)

(a) In accordance with FAR 52.245-1(b), Property Management, and FAR 52.245-1(f), Contractor Plans and Systems, the Contractor shall have a system to manage (control, use, preserve, protect, repair and maintain) Government property in its possession.

(b) The Contract Data Requirements Lists (CDRLs) associated with the Property for this Contract are contained in Exhibit "A" and included in Section J of this contract. The spreadsheet required by the CDRL entitled "Master Government Property List (MGPL)" will be incorporated in Section J of this contract.

(c) The Contractor shall provide to the Government an updated MGPL according to the CDRL.

(d) The Government Site Visits/Physical Inventory — The DTRA will annually verify the Property in the Possession of the Contractor. The Contractor's Point of Contact shall coordinate with the Program Manager/Contracting Officer Representative or DTRA Accountable Property Officer (APO) on prearranged site visits upon request.

(e) The Contractor shall annually conduct and provide to the DTRA a physical inventory report of ALL Government Property in its possession according to the Master Government Property List (Physical Inventory) CDRL.

(f) The physical inventory report shall be validated/confirmed via signature by both the Contractor's Property Administrator and the DTRA's Government Representative (i.e. COR, APO, etc.). Inventory discrepancies must be reported immediately to the Contracting Officer, COR/Program Manager and resolved by the DTRA APO.

(g) The Contractor shall provide all CDRL reports to the Government electronically in a spreadsheet using Microsoft Office Excel. Unless otherwise specified, the contractor shall submit all data through the IUID Registry.

(End of Clause)

Section J - List of Documents, Exhibits and Other Attachments

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Exhibit A	CLIN 0002 Exhibit(s)	1	
Attachment 1	Statement of Work	11	15-MAR-2009
Attachment 2	CDRLS	5	15-SEP-2009

Statement of Work

03/15/09

1.0 OBJECTIVE

Brief Overview of Specialty Area: Our proposal addresses the topic: Protect the Department of Defense from WMD. We will attempt to develop new and improve existing antiviral vaccines to immunize the warfighter against often debilitating or lethal viral diseases. Our vaccine formulation will encode antigens from viral biothreat agents (e.g., Rift Valley fever virus (RVFV)) and will lead to a strong adaptive immune response against the targeted pathogens. These pre-treatments will also have utility for the general public in regions where the target pathogens are endemic or emerging, even in the United States where the spread of RVFV would rival that of West Nile virus.

Why Work is Being Pursued: Viral infections present a significant threat to our troops abroad, to the United States mainland as a potential bioweapon, and to travelers and indigenous populations where the pathogens are endemic and/or emerging. Many viral agents are classified as NIAID Category A Priority Pathogens and as Biosafety Level (BSL-) 3 or 4 agents due to the lack of available vaccines and/or their ease of dissemination by aerosol transmission. The initial focus will be to combine the broadly applicable aGal Adjuvant Technology with vaccine candidates against RVFV. This pathogen is a real and common threat. The lack of prophylactic and therapeutic measures, the potential for human-to-human transmission, and the significant threat to livestock associated with RVFV, make infection with these pathogens a serious public health concern not only in endemic, developing countries, but also in many non-endemic developed countries due to the recent bioterror threats. Until recently RVFV outbreaks had been limited to the African continent. However, the geographical range of RVFV has now expanded, with outbreaks in Saudi Arabia and Yemen in 2000 affecting both livestock and humans. More recent reports of infected livestock within Russia, Afghanistan and Northern India have been confirmed [77]. This is a clear indication that RVFV is not solely an African disease but a geographically rapidly expanding disease which is quickly becoming a threat to the US. Importantly, the number of outbreaks and lethality of these outbreaks have not lessened over time, and there are indications that they may have become more severe. The urgent need for an effective vaccine for RVFV is illustrated by the statistics from recent outbreaks: From 13th Jan to 3rd May 2007, a total of 264 cases including 109 deaths [case fatality ratio (CFR) 41%] of RVF were reported in Tanzania-; from 30th Nov 2006 to 12th Mar 2007, a total of 684 cases including 155 deaths (CFR 23%) of RVF were reported in Kenya. From 19th Dec 2006 to 20th Feb 2007, a total of 114 cases including 51 deaths (CFR 45%) of RVF were reported in Somalia [World Health Organization (WHO), CSR, Disease Outbreak News, Wed 9 May 2007]. Although the mortality rate for humans infected with RVFV previously reported was less than 2%, it is clear that the mortality rate in these recent outbreaks is substantially higher. Although not addressed by these reports, it is likely that morbidity is also substantially increased.

What We are Trying to Accomplish: We will attempt to demonstrate the broad applicability of the aGal Adjuvant Technology to any existing or new antiviral vaccine platform to protect the warfighter from potentially lethal infection. These modified,

improved vaccines against primarily viral pathogens identified as priority threats by the DoD will also be useful for the general population in areas where human pathogenic viral agents are endemic or emerging, as well as in the event of a suspected bioterror incident.

Overall, this proposed project will illustrate how the broad-spectrum aGal Adjuvant Technology will improve the efficacy of new and existing vaccines, which should lead to a reduction in the overall number of required vaccinations and a decrease of the vaccine dose, thus making vaccine production more cost-effective and for the end user (i.e., government: Strategic National Stockpile and National Veterinary Stockpile) more affordable.

2.0 SCOPE: This proposal, "aGal Adjuvant Technology for Biodefense Agents", is in support of the R&D Innovation Office (RD-INO).

Goals: This effort will support the DTRA campaign, "Protect the Department of Defense from WMD", aimed at developing Protection and Mitigation technologies, methodologies, and/or standards for eventual transition through the DTRA R&D Enterprise.

[*]

3.0 BACKGROUND

aGal Adjuvant Technology: Safety and Broad Applicability: The purpose of an adjuvant is to stimulate the immune system to respond more strongly to an antigen than it normally would. A very good adjuvant can mean that a fraction of the antigen can be used to stimulate the body's defense to create immunity to a disease. Since the antigen is the most expensive and difficult component required for the production of an effective vaccine, good adjuvants can be the key to generate any functional vaccine.

The aGal Adjuvant Technology exploits a robust zoonotic blockade against viruses from lower animals to enhance potency of antiviral vaccines. Human naturally acquired immunity against the common aGal epitope (galactose-alpha(1,3)-galactose-beta(1,4)N-acetyl-glucosamine-R (Gal-a(1-3)-Gal-b(1,4)-GlcNAc-R) is facilitated by the loss of a key enzyme in the epitope's biosynthetic pathway. Since human cells are devoid of this epitope, chronic stimulus from gut flora leads to high levels of circulating anti-aGal Abs (IgG and IgM) and the development of a robust immune response pathway. Because the aGal epitope is immediately recognized as foreign, the naturally acquired aGal immune pathway in humans serves as a strong barrier to zoonotic infection. The aGal Adjuvant Technology takes advantage of this natural process to facilitate the rapid presentation of modified antigens to antigen-presenting cells, leading to a strong immune response. The evolutionary immunity to aGal ensures that the presence of aGal epitopes on antigens will lead to a robust immune response involving cross-activation of T_{H1} immunity, characterized by cytokine secretion and increased phagocytic activity, and T_{H2} immunity characterized by high Abs titers. Interestingly, birds are also a_{1,3} GT-negative and this might explain why several pathogens transmitted by birds have readily jumped to humans (avian flu H5N1, West Nile virus, Eastern equine encephalitis).

Ab titers against aGal epitopes are among the highest recorded in humans and can comprise >2% of the entire circulating Ab repertoire. These Abs are also responsible for the well-documented immunologic phenomenon known as hyperacute rejection (of aGal⁽⁺⁾ tissues), experimentally observed during attempts at xenotransplantation.

[*]

Product Management Plan: The PI Dr. Link and the Program Manager Dr. Flick shall update the Product Development Plan within thirty (30) calendar days of the effective date of the contract. The contractor shall obtain approval of the Project Officer and Contracting Officer prior to the initiation of any activities related to its execution. Dr. Link shall oversee the performance of all activities based on the approved Implementation Plan. Both the PDP and Implementation Plan will be reviewed at a Post-Award Contract Initiation Meeting planned and coordinated by Dr. Link and shall include the PI, Project Manager, key investigators, and appropriate key contractor and subcontractor personnel, Project Officer, other DTRA and DoD staff designated by the Project Officer and the Contracting Officer. Dr. Flick and Dr. Link will provide oversight on the performance of all activities based on defined milestones and timelines approved by the Project Officer and the Contracting Officer. In addition, the PI and Program Manager will be responsible for the development of, review and recommendations for all proceed (Go/No Go) decision points throughout the period of performance, including listing quantitative and qualitative assessment criteria, both scientific and regulatory, for advancing the candidate vaccine past each Go/No Go decision point to the next stage of product development for all Research and Development Activities. In addition, they will be responsible for annual updates and any change in milestones. The contractor shall obtain approval of the Project Officer and the Contracting Officer of all updates and changes to the PDP prior to the initiation of any activities related to its execution. The contractor shall provide a detailed timeline, in Gantt chart format with predecessor and successor logic, covering the initiation, conduct and completion of each product development task that is linked to direct costs for each product development milestone identified in the PDP. Dr. Link will elicit input and recommendations as needed from all team member designees in developing the PDP, timelines, and management decisions. The PI shall submit all required reports (i.e., Quarterly Contract Performance Report, Cumulative Annual Progress Report, etc.) as defined in the Contract Data Requirement List (CDRL).

[*]

Procedures to handle adverse experimental or production developments: The occurrence of adverse experimental data or production difficulties is fairly common in biologics development and manufacturing. The responsibility of every individual in the project is to address these problems in a constructive manner. Supervisory personnel, whether in the research laboratory or operating in QA/QC, will convey written notice of such problems or concerns to the project manager (or their designee) in a timely fashion. It is the responsibility of the project manager to convene a meeting of stakeholders in the affected processes to allow discussion of issues. These meetings

will be recorded such that proposals that further define and/or resolve those problems are acted upon in a timely fashion. The Principal Investigator is responsible for determining whether satisfactory resolution has been achieved. If developments are such that the project goals are jeopardized or require actions outside the scope of the contract, the PI is required to assure notification of the Project Officer in a timely manner so that alternative strategies and/or remedial actions may be taken.

[*]

CONTRACT DATA REQUIREMENTS LIST										Form Approved OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the government issuing Contracting Officer for the Contract/PR No. listed in Block E.													
A. CONTRACT LINE ITEM NO. N/A		B. EXHIBIT A		C. CATEGORY: TDP TM OTHER									
D. SYSTEM/ITEM Chemical/Biological Medical Systems				E. CONTRACT/PR NO.				F. CONTRACTOR BioProtection Systems Corporation					
1. DATA ITEM NO. A001		2. TITLE OF DATA ITEM Quarterly Status Report				3. SUBTITLE Quarterly Contract Performance Report							
4. AUTHORITY (Data Acquisition Document No.) N/A				5. CONTRACT REFERENCE N/A				6. REQUIRING OFFICE DTRA/CBM					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED N/A		10. FREQUENCY Quarterly		12. DATE OF FIRST SUBMISSION See Blk. 16		14. DISTRIBUTION					
8. APP CODE A				11. AS OF DATE See Blk. 16		13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16		a. ADDRESSEE		b. COPIES			
16. REMARKS Blocks II - 13: First report due within 15 days after end of first Fiscal Quarter after award. Subsequent reports due within 15 days after end of each FQ. Format as provided to the contractor.								DTRA/CBM		1			
								DTRA/BCR		1			
								DTRA/COR		1			
								15. TOTAL		0		3	
1. DATA ITEM NO. A002		2. TITLE OF DATA ITEM Annual Report				3. SUBTITLE Cumulative Annual Progress Report							
4. AUTHORITY (Data Acquisition Document No.) N/A				5. CONTRACT REFERENCE N/A				6. REQUIRING OFFICE DTRA/CBM					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED N/A		10. FREQUENCY See Blk. 16		12. DATE OF FIRST SUBMISSION See Blk. 16		14. DISTRIBUTION					
8. APP CODE A				11. AS OF DATE See Blk. 16		13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16		a. ADDRESSEE		b. COPIES			
16. REMARKS Blocks 10-13: First submission within 15 days after the end of the first Fiscal Year following award. Subsequent reports due within 15 days after the end of the Fiscal Year. Format as provided to the contractor.								DTRA/CBM		1			
								DTRA/BCR		1			
								DTRA/COR		1			
								15. TOTAL		0		3	
1. DATA ITEM NO. A003		2. TITLE OF DATA ITEM Quarterly Financial Status Report				3. SUBTITLE							
4. AUTHORITY (Data Acquisition Document No.) N/A				5. CONTRACT REFERENCE N/A				6. REQUIRING OFFICE DTRA/CBM					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED N/A		10. FREQUENCY Quarterly		12. DATE OF FIRST SUBMISSION See Blk. 16		14. DISTRIBUTION					
8. APP CODE A				11. AS OF DATE See Blk. 16		13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16		a. ADDRESSEE		b. COPIES			
16. REMARKS Blocks 11 - 13: First report due within 15 days after end of first Fiscal Quarter after award. Subsequent reports due within 15 days after end of each FQ. Format as provided to the contractor.								DTRA/CBM		1			
								DRA/BCR		1			
								DTRA/COR		1			
								15. TOTAL		0		3	
1. DATA ITEM NO.		2. TITLE OF DATA ITEM				3. SUBTITLE							
4. AUTHORITY (Data Acquisition Document No.) N/A				5. CONTRACT REFERENCE N/A				6. REQUIRING OFFICE					
7. DD 250 REQ		9. DIST STATEMENT REQUIRED		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION					
8. APP CODE		N/A		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION		a. ADDRESSEE		b. COPIES			
16. REMARKS								Draft		Final			
								Reg		Repro			
								0		0		0	
								15. TOTAL		0		0	
G. PREPARED BY /s/William Dowling				H. DATE 8/13/08		I. APPROVED BY /s/ Paula R. Bryant				J. DATE 9/24 03			

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST (2 Data Items)						Form Approved OMB No. 0704-0188				
The public reporting burden for this collection of information is estimated to average 225 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the government issuing Contracting Officer for the Contract/PR No. listed in Block E.										
A. CONTRACT LINE ITEM NO. 002		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER _____						
D. SYSTEM/ITEM Alphagal Adj Tech for biodefense			E. CONTRACT/PR NO. TBD		F. CONTRACTOR BioProtection Systems Corp					
1. DATA ITEM NO. A004		2. TITLE OF DATA ITEM Expenditure Forecast			3. SUBTITLE Project Spend Plan					
4. AUTHORITY (Data Acquisition Document No.) DU-MGMT-8146S				5. CONTRACT REFERENCE N/A		6. REQUIRING OFFICE DTRA-RD-CBM				
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED NA		10. FREQUENCY See Blk. 16	12. DATE OF FIRST SUBMISSION See Blk. 16	14. DISTRIBUTION				
8. APP CODE A				11. AS OF DATE See Blk. 16	13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16	a. ADDRESSEE		b. COPIES		
16. REMARKS 1. Submission shall be furnished electronically via e-mail in contractor format. 2. See attached addressee sheet for a listing of e-mail and postal addresses for the individuals listed in Block 14. 3. First submission within 30 days of contract award. Updates to be made annually.						DTRA-RD-CBM		0	1	0
						DTRA-BE-BCR		0	1	0
15. TOTAL →						0	2	0		
1. DATA ITEM NO. A005		2. TITLE OF DATA ITEM Patents – Reporting of subject inventions			3. SUBTITLE N/A					
4. AUTHORITY (Data Acquisition Document No.) DI-MISC-80711A				5. CONTRACT REFERENCE SOW		6. REQUIRING OFFICE DTRA-RD-CBM				
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED NA		10. FREQUENCY See Blk. 16	12. DATE OF FIRST SUBMISSION See Blk. 16	14. DISTRIBUTION				
8. APP CODE A				11. AS OF DATE See Blk. 16	13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16	a. ADDRESSEE		b. COPIES		
16. REMARKS 1. See attached addressee sheet for a listing of e-mail and postal addresses for the individuals listed in Block 14. 2. Provide copies of invention disclosures for subject inventions within 2 months of an employee inventor reporting a subject invention to the Contractor. 3. Report all subject inventions on DD Form 882 every 12 months from the date of the contract award. 4. Report all subject inventions on DD Form 882 in a final report.						DTRA-RD-CBM		1	1	0
						DTRA-BE-BCR		0	1	0
						15. TOTAL →				
G. PREPARED BY /s/William Dowling			H. DATE 9/15/09	I. APPROVED BY /s/William Dowling			J. DATE 9-15-09			

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST (2 Data Items)						Form Approved OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 220 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the government issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM NO. 002		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER _____					
D. SYSTEM/ITEM Alphagal adj tech for biodefense			E. CONTRACT/PR NO. TBD		F. CONTRACTOR BioProtection Systems Corp				
1. DATA ITEM NO. A006	2. TITLE OF DATA ITEM Regulatory approval and technical data packages			3. SUBTITLE Submission Report (Regulatory Appr. Docs)					
4. AUTHORITY (Data Acquisition Document No.) NA			5. CONTRACT REFERENCE NA		6. REQUIRING OFFICE DTRA-RD-CBM				
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED NA	10. FREQUENCY See Blk. 16		12. DATE OF FIRST SUBMISSION See Blk. 16		14. DISTRIBUTION			
8. APP CODE A		11. AS OF DATE See Blk. 16	13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16			a. ADDRESSEE		b. COPIES	
16. REMARKS 1. Submission shall be furnished electronically via e-mail in contractor format. 2. See attached addressee sheet for a listing of e-mail and postal addresses for the individuals listed in Block 14. 3. The contractor will provide the Government copies of all technical data generated by the company prior to or during the performance of this contract that would be necessary to pursue FDA approval of an investigational new drug, a new drug application, biologics license application or other approval and notify the Government of FDA decisions.						Draft	Reg	Repro	
						DTRA-RD-CBM	0	1	0
						DTRA-BE-BCR	0	1	0
15. TOTAL						0	2	0	
1. DATA ITEM NO. A007	2. TITLE OF DATA ITEM Miscellaneous data submissions			3. SUBTITLE None					
4. AUTHORITY (Data Acquisition Document No.) N/A			5. CONTRACT REFERENCE N/A		6. REQUIRING OFFICE DTRA-RD-CBM				
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED NA	10. FREQUENCY 1 time		12. DATE OF FIRST SUBMISSION See Blk. 16		14. DISTRIBUTION			
8. APP CODE A		11. AS OF DATE See Blk. 16	13. DATE OF SUBSEQUENT SUBMISSION See Blk. 16			a. ADDRESSEE		b. COPIES	
16. REMARKS Submission frequencies and dates will be dictated in the SOW tasks. Deliverable shall be compatible electronic media. Contractor format acceptable, unless specifically cited in SOW.						Draft	Reg	Repro	
						DTRA-RD-CBM	0	1	0
						DTRA-BE-BCR	0	1	0
						15. TOTAL			
G. PREPARED BY William Dowling /s/William Dowling		H. DATE 9/15/09		I. APPROVED BY William Dowling /s/William Dowling		J. DATE 9/15/09			

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST (f Data Items)					Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.							
A. CONTRACT LINE ITEM NO. 002		B. EXHIBIT A		C. CATEGORY: TDP TM OTHER			
D. SYSTEM/ITEM Alphagal adj tech for biodefense			E. CONTRACT/PR NO. TBD		F. CONTRACTOR BioProtection Systems Corp		
1. DATA ITEM NO. A008	2. TITLE OF DATA ITEM Master Government Property List			3. SUBTITLE GFP, GFE, GFM, and Contractor Acquired Property)			
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-80269			5. CONTRACT REFERENCE SOW PARA		6. REQUIRING OFFICE DTRA/BE-BL		
7. DO 250 REQ LT	8. DIST STATEMENT REQUIRED N/A	10. FREQUENCY See Block 16		12. DATE OF FIRST SUBMISSION See Block 16		14. DISTRIBUTION	
8. APP CODE A		11. AS OF DATE See Block 16		13. DATE OF SUBSEQUENT SUBMISSION See Block 16		a. ADDRESSEE	
						b. COPIES	
						Draft	
						Final	
						Reg	
						Repro	
16. REMARKS						DTRA/BE-BL	
BLOCK 4: This DID is for reference only. The report shall be prepared according to the remarks below.						1	
BLOCK 10: Monthly						DTRA/BE-BF	
BLOCK 11: Award of Contract/Task Order						1	
BLOCK 12: 45 th calendar day following Contract/Task Order award						DTRA/BE-BI	
BLOCK 13: Tenth calendar day of each month						1	
Remarks: During performance of the Contract, the Contractor may purchase material or equipment using government funds; [Contractor Acquired Property (CAP)] if approved by Contract Officer. The Contractor shall provide a Master Government Property List (MGPL), inclusive of all CAP, on the 45 th calendar day following Contract/Task Order award and the tenth calendar day of each subsequent month.						DTRA/BE-BC	
The Mater Government Property List shall include all equipment/property provided to the contract, including equipment transferred between projects, broken and obsolete equipment, and items purchased outside the United States. The Master Government Property List shall consist of the following data elements at a minimum: Accountable Contract/Task Order Number, Original Manufacturer's Name Noun Name Description/Commercial Use, Original Manufacturer's Part Number, Model Number, Serial Number, DTRA Asset ID #, Equipment Identification Number Quantity, Task Order to which equipment is assigned, Work Breakdown Schedule (WBS) Project Number, Item Unique Identifier or equivalent, Project Descriptor, Equipment Location, Data Placed in Service, Condition of Property, Status (active, stored, in-transit or waiting disposal), Government Property Type [Government Furnished Equipment (GFE), Government Furnished Material (GFM), Government Furnished Property (GFP), Contractor Acquired Property (CAP)]. Unit Acquisition Cost (From Accounting System) and Remarks.						DTRA/COR	
The Master Government Property List shall be delivered electronically in a spreadsheet using Microsoft Office Excel. Abbreviations are not allowed.						1	
Ninety (90) days prior to Contract expiration, the Contractor shall submit a final Master Government Equipment List suitable for close-out purposes containing use/disposition recommendations.						1	
						15. TOTAL	
						0	
						5	
						0	
G. PREPARED BY William Dowling /s/ William Dowling			H. DATE 9/15/09		I. APPROVED BY William Dowling /s/ William Dowling		J. DATE 9/15/09

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

DD FORM 1423-1, JUN 90 (EG)

PREVIOUS EDITION ARE OBSOLETE

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BE-BC SOP 09-03 Enclosure

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)					Form Approved OMB No. 0704-0188				
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM NO. 002		B. EXHIBIT A		C. CATEGORY: TDP TM OTHER					
D. SYSTEM/ITEM Alphagal adj tech for biodefense			E. CONTRACT/PR NO. TBD		F. CONTRACTOR BioProtection Systems Corporation				
1. DATA ITEM NO. A009	2. TITLE OF DATA ITEM Master Government Property - Physical Inventory			3. SUBTITLE GFP, GFE, GFM, and Contractor Acquired Property)					
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-80441			5. CONTRACT REFERENCE SOW PARA		6. REQUIRING OFFICE DTRA/BE-BL				
7. DO 250 REQ LT	8. APP CODE A	9. DIST STATEMENT REQUIRED N/A	10. FREQUENCY See Block 16	11. AS OF DATE See Block 16	12. DATE OF FIRST SUBMISSION See Block 16	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	14. DISTRIBUTION		
						a. ADDRESSEE		b. COPIES	
						Draft		Final	
								Reg	
								Repro	
16. REMARKS						DTRA/BE-BL		1	
BLOCK 4: This DID is for reference only. The report shall be prepared according to the remarks below.						DTRA/BE-BF		1	
BLOCK 10: Annually						DTRA/BE-BI		1	
BLOCK 11: Award of Contract/Task Order						DTRA/BE-BC		1	
BLOCK 12: 1 Month after Contract/Task Order Award						DTRA/COR		1	
BLOCK 13: Annually									
Remarks: The Contractor shall annually perform, record and disclose physical inventory results of all Contractor Acquired Property in the Contractor's possession. This report shall include ALL Government Property/Contractor Acquired Property/Equipment/Material. A final coordinated physical inventory shall be performed upon contract completion or termination and approved by the DTRA Accountable Property Officer.									
The physical inventory report shall identify the Contractor's Point of Contact with telephone number and signature and the following data elements at a minimum: Accountable Contract/Task Order Number, Original Manufacturer's Name, Description/Commercial Use, Original Manufacturer's Part Number, Model Number, Serial Number, DTRA Asset ID #, Equipment Identification Number, Quantity, Task Order to which equipment is assigned, Work Breakdown Schedule (WBS) Project Number, Item Unique Identifier or equivalent, Project Descriptor, Equipment Location, Data Placed in Service, Condition of Property, Status (active, stored, in-transit or waiting disposal), Government Property Type (Government Furnished Equipment (GFE), Government Furnished Material (GFM), Government Furnished Property (GFP), Contractor Acquired Property (CAP)), Unit Acquisition Cost (From Accounting System) and Remarks.									
The physical inventory report shall be documented in writing and validated/confirmed, via signature, by both the Contractor's Property Administrator and the DTRA's Governmental Representative. Inventory discrepancies must be reported immediately to the Contracting Officer, Contracting Officer Representative/Program Manager or DTRA Accountable Property Officer. The report shall contain original signatures with spreadsheet attachments and be delivered electronically in a spreadsheet using Microsoft Office Excel. Abbreviations are not allowed.									
Ninety (90) days prior to Contract expiration, the Contractor shall submit a final property identification listing suitable for close-out purposes containing use/disposition recommendations. The report must be reviewed, approved and signed by the DTRA Accountable Property Officer prior to contract close out.									
						15. TOTAL		0 5 0	
G. PREPARED BY William Dowling /s/ William Dowling			H. DATE 09/15/09		I. APPROVED BY William Dowling /s/ William Dowling		J. DATE 09/15/09		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

DD FORM 1423-1, JUN 90 (EG)

PREVIOUS EDITION ARE OBSOLETE

Page 1 of 1 Pages

BE-BC SOP 09-03 Enclosure

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ CHARLES J. LINK, JR.

CHARLES J. LINK, JR.

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ NICHOLAS N. VAHANIAN

NICHOLAS N. VAHANIAN

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ GORDON H. LINK

GORDON H. LINK

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ KENNETH LYNN

KENNETH LYNN

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ WILLIAM J. RAMSEY

WILLIAM J. RAMSEY

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact, or (c) as to any attorney-in-fact individually, until such attorney-in-fact shall no longer be employed by the Company or Cooley LLP, as applicable.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ THOMAS A. RAFFIN

THOMAS A. RAFFIN

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

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IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ ERNEST J. TALARICO, III

ERNEST J. TALARICO, III

POWER OF ATTORNEY

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- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

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IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ DAVID J. LUNDQUIST

DAVID J. LUNDQUIST

POWER OF ATTORNEY

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- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer, director and/or more than 10% stockholder of NewLink Genetics Corporation (the "Company"), Forms 3, 4, and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
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IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ SARAH ALEXANDER

SARAH ALEXANDER

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

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IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ JOSEPH SALURI

JOSEPH SALURI

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints Charles J. Link, Jr., Gordon H. Link, Daniel Wobbekind, Bryn Weaver and James C.T. Linfield, or any one of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

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- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

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IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 2nd day of November, 2011.

/s/ PAUL R. EDICK

PAUL R. EDICK

QuickLinks

[Exhibit 24.3](#)