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

**AMENDMENT NO. 2
TO**

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

VAXART, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	2834 (Primary Standard Industrial Classification Code Number)	59-1212264 (I.R.S. Employer Identification No.)
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**290 Utah Ave
Suite 200
South San Francisco, California 94080
(650) 550-3500**

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

**Wouter W. Latour M.D.
President and Chief Executive Officer
290 Utah Ave
Suite 200
South San Francisco, California 94080
(650) 550-3500**

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

Copies to:

**John T. McKenna
Josh Seidenfeld
Cooley LLP
3175 Hanover Street
Palo Alto, California 94304
(650) 843-5000**

**Gary Emmanuel
Heidi Steele
McDermott Will & Emery LLP
340 Madison Avenue
New York, New York 10173
(212) 547-5400**

**Approximate date of commencement of proposed sale to 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, as amended, 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, please 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, please 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 Statement 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, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act of 1933, as amended.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(1)
Common stock, par value \$0.10 per share	\$11,500,000(2)	
Pre-funded warrants to purchase shares of common stock and common stock issuable upon exercise thereof	\$10,000,000(3)	
Common warrants to purchase shares of common stock and common stock issuable upon exercise thereof	\$11,500,000(2)	
Representative warrants to purchase shares of common stock and common stock issuable upon exercise thereof	\$1,006,250(4)	
Total	\$34,006,250(5)	\$4,122

- (1) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. The registrant paid \$4,122 with prior filings of this registration statement.
- (2) Includes securities that the underwriters have the option to purchase.
- (3) The proposed maximum aggregate offering price of the common stock proposed to be sold in the offering will be reduced on a dollar-for-dollar basis based on the aggregate offering price of the pre-funded warrants offered and sold in the offering (plus the aggregate exercise price of the common stock issuable upon exercise of the pre-funded warrants), and as such the proposed aggregate maximum offering price of the common stock and pre-funded warrants (including the common stock issuable upon exercise of the pre-funded warrants), if any, is \$11,500,000.
- (4) Represents warrants issuable to the underwriters or their designees (the "representative warrants") to purchase a number of shares of common stock equal to 7% of the number of shares of common stock and pre-funded warrants being offered at an exercise price equal to 125% of the public offering price. Resales of the representative warrants on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, are registered hereby. See "Underwriting."
- (5) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issuable to prevent dilution resulting from stock splits, dividends or similar transactions.

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, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Explanatory Note

Vaxart, Inc. is filing this Amendment No. 2 (this "Amendment") to its Registration Statement on Form S-1 (File No. 333-233717) for the purpose of filing certain exhibits as indicated in Item 16 of Part II of this Amendment. No changes or additions are being made to the prospectus constituting Part I of the Registration Statement (not included herein) or to Items 13, 14, 15 or 17 of Part II of the Registration Statement. Accordingly, this Amendment consists only of the facing page, this explanatory note, Item 16 of Part II, and the signature page of the Registration Statement.

PART II—INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits.

Exhibit Number	Description	Incorporated by Reference			
		Schedule/ Form	File Number	Exhibit	File Date
1.1	Underwriting Agreement				
2.1	Agreement and Plan of Merger and Reorganization, dated October 27, 2017, by and among Aviragen Therapeutics, Inc., Vaxart, Inc. and Agora Merger Sub, Inc.	8-K	001-35285	2.1	October 30, 2017
2.2	Amendment No. 1, dated as of February 7, 2018, to the Agreement and Plan of Merger and Reorganization, dated October 27, 2017, by and among Aviragen Therapeutics, Inc., Vaxart, Inc. and Agora Merger Sub, Inc.	8-K	001-35285	2.1	February 7, 2018
3.1	Restated Certificate of Incorporation of Aviragen Therapeutics, Inc.	10-K	001-35285	3.1	September 13, 2016
3.2	Certificate of Amendment to Restated Certificate of Incorporation of Aviragen Therapeutics, Inc.	8-K	001-35285	3.1	February 20, 2018
3.3	Certificate of Amendment to Restated Certificate of Incorporation of Vaxart, Inc.	8-K	001-35285	3.2	February 20, 2018
3.4	Certificate of Amendment to Restated Certificate of Incorporation of Vaxart, Inc.	8-K	001-35285	3.1	April 24, 2019
3.5	Restated By-laws of Aviragen Therapeutics, Inc.	10-K	001-35285	3.2	September 13, 2016
4.1	Reference is made to Exhibits 3.1 to 3.5 .				
4.2	Specimen Common Stock Certificate	S-3	333-228910	4.2	December 20, 2018
4.3	Form of Pre-Funded Warrant	S-1	333-233717	4.3	September 11, 2019
4.4	Form of Common Warrant	S-1	333-233717	4.4	September 11, 2019
4.5	Form of Representative Warrant				
5.1	Opinion of Cooley LLP	S-1	333-233717	5.1	September 20, 2019

Exhibit Number	Description	Schedule/ Form	Incorporated by Reference		
			File Number	Exhibit	File Date
10.1+	Collaboration and License Agreement dated September 29, 2003, between Biota Holdings Limited and Sankyo Co., Ltd.	10-Q	001-35285	10.5	May 10, 2013
10.2+	Amendment #1 to Collaboration and License Agreement dated June 30, 2005, between Biota Holdings Limited, Biota Scientific Management Pty. Ltd. and Sankyo Company, Ltd.	10-Q	001-35285	10.6	May 10, 2013
10.3	Amendment #2 to Collaboration and License Agreement, dated March 27, 2009, between Biota Holdings Limited, Biota Scientific Management Pty. Ltd. and Daiichi Sankyo Company, Limited	10-Q	001-35285	10.7	May 10, 2013
10.4+	Commercialization Agreement dated March 27, 2009, between Biota Holdings Limited, Biota Scientific Management Pty. Ltd and Daiichi Sankyo Company, Ltd.	10-Q	001-35285	10.8	May 10, 2013
10.5+	Contract dated March 31, 2011, between Biota Scientific Management Pty. Ltd. and Office of Biomedical Advanced Research and Development Authority within the Office of the Assistant Secretary for preparedness and Response at the U.S. Department of Health and Human Services	10-Q	001-35285	10.9	May 10, 2013
10.6	Research and License Agreement dated February 21, 1990, by and among Biota Scientific Management Pty. Ltd., Biota Holdings Limited, Glaxo Australia Pty. Ltd. and Glaxo Group Limited	10-K	001-35285	10.6	September 27, 2013
10.7#	2007 Omnibus Equity and Incentive Plan (included as Appendix A to the proxy statement).	DEF 14A	000-04829	—	April 12, 2007

Exhibit Number	Description	Incorporated by Reference		
		Schedule/ Form	File Number	Exhibit File Date
10.8#	Form of Employee Stock Option Agreement under the 2007 Omnibus Equity and Incentive Plan	8-K	001-35285	10.1 December 10, 2013
10.9+	Royalty Interest Acquisition Agreement by and between Aviragen Therapeutics, Inc., Biota Holdings Pty Ltd, Biota Scientific Management Pty. Ltd. and HealthCare Royalty Partners III, L.P. dated April 22, 2016	8-K	001-35285	10.1 April 26, 2016
10.10	Protective Rights Agreement between Aviragen Therapeutics, Inc. and HealthCare Royalty Partners III, L.P. dated April 22, 2016	8-K	001-35285	10.2 April 26, 2016
10.11#	Form of Employee Stock Option Agreement under the 2016 Equity Incentive Plan	10-Q	001-35285	10.1 May 8, 2017
10.12#	2016 Equity Incentive Plan (included as Appendix A to the proxy statement)	DEF 14A	001-35285	— September 27, 2016
10.13#	Director Stock Option Agreement	S-4	333-222009	10.22 December 12, 2017
10.14	Form of Indemnification Agreement by and between Vaxart, Inc. and its Directors and Executive Officers	8-K	001-35285	10.3 February 20, 2018
10.15#	Vaxart, Inc. Amended and Restated 2007 Equity Incentive Plan, Stock Option Agreement, form of Notice of Stock Option Grant, form of Additional Terms and Conditions to Option and Stock Option Exercise Agreement	S-4/A	333-222009	10.24 December 29, 2017
10.16#	Offer Letter, dated May 25, 2011, and Amendment to Offer Letter and Option Grant Agreement, dated October 1, 2011, by and between Vaxart, Inc. and Wouter W. Latour, M.D.	S-4/A	333-222009	10.25 December 29, 2017
10.17	Industrial Lease dated October 28, 2013, by and between Vaxart, Inc. and Oyster Point LLC	S-4/A	333-222009	10.26 December 29, 2017

Exhibit Number	Description	Incorporated by Reference		
		Schedule/ Form	File Number	Exhibit File Date
10.18	Lease Agreement dated April 17, 2015, by and between Vaxart, Inc. and CRP Edgewater, LLC	S-4/A	333-222009	10.27 December 29, 2017
10.19	Loan and Security Agreement dated December 22, 2016, by and between Vaxart, Inc. and Oxford Finance LLC	S-4/A	333-222009	10.28 December 29, 2017
10.20	Second Amendment to the Loan Agreement, dated February 13, 2018, between Vaxart, Inc. and Oxford Finance LLC	8-K	001-35285	10.1 February 20, 2018
10.21#	Severance Benefit Plan and Form of Severance Benefit Plan Participation Notice	8-K	001-35285	10.1 June 6, 2018
10.22	Settlement Agreement by and among Vaxart, Inc., Digirad Corporation, East Hill Management Company, LLC, and Aviragen Therapeutics, Inc.	8-K	001-35285	10.1 February 9, 2018
10.23	Form of Sales Agreement dated December 19, 2018 by and between Vaxart, Inc. and B. Riley FBR, Inc.	S-3	333-228910	1.2 December 20, 2018
10.24	Amended and Restated Warrant issued to Oxford Finance LLC, dated February 13, 2018	8-K	001-35285	10.2 February 20, 2018
10.25	Form of Securities Purchase Agreement dated as of March 19, 2019, by and among Vaxart, Inc. and the Purchasers named therein	8-K	001-35285	10.1 March 20, 2019
10.26	Form of Placement Agent Warrant	8-K	001-35285	10.3 March 20, 2019
10.27#	2019 Equity Incentive Plan	8-K	001-35285	10.1 April 24, 2019
10.28#	Form of Stock Option Grant Notice, Stock Option Agreement and Notice of Exercise under the 2019 Equity Incentive Plan	8-K	001-35285	10.2 April 24, 2019
10.29#	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement and Notice of Exercise under the 2019 Equity Incentive Plan	8-K	001-35285	10.3 April 24, 2019

Exhibit Number	Description	Incorporated by Reference			
		Schedule/ Form	File Number	Exhibit	File Date
10.30+	Manufacturing Services Agreement dated July 17, 2019, by and between Vaxart, Inc. and Lonza Houston, Inc.				
10.31	First Amendment to Lease Agreement, dated September 17, 2019, by and between Vaxart, Inc. and HCP, Inc.	8-K	001-35285	10.1	September 19, 2019
16.1	Letter dated February 16, 2018 from Ernst & Young LLP to the Securities and Exchange Commission	8-K	001-35285	16.1	February 20, 2018
21.1	List of Subsidiaries	10-K	001-35285	21.1	February 6, 2019
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm	S-1	333-233717	23.1	September 20, 2019
23.2	Consent of Cooley LLP is contained in Exhibit 5.1 to this Registration Statement	S-1	333-233717	23.2	September 20, 2019
24.1	Power of Attorney (see the signature page to the initial filing of this registration statement on Form S-1).	S-1	333-233717	—	September 11, 2019

Management contract or compensation plan or arrangement.

+ Portions of this exhibit (indicated by asterisks) have been omitted as the Registrant has determined that (i) the omitted information is not material and (ii) the omitted information would likely cause competitive harm to the Registrant if publicly disclosed.

(b) *Financial Statement Schedules.*

Financial statement schedules have been omitted, as the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto appearing in the prospectus made part of this registration statement.

QuickLinks

[Explanatory Note](#)

[PART II—INFORMATION NOT REQUIRED IN PROSPECTUS](#)

[ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES](#)

[SIGNATURES](#)

Vaxart, Inc.

[·] Shares of Common Stock

Pre-Funded Warrants to Purchase [·] Shares of Common Stock

Common Warrants to Purchase [·] Shares of Common Stock

Underwriting Agreement

September [·], 2019

H.C. Wainwright & Co., LLC
As Representative of the several
Underwriters listed in Schedule A hereto
430 Park Avenue, 4th Floor
New York, NY 10022

Ladies and Gentlemen:

Vaxart, Inc., Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several underwriters named in Schedule A (the “**Underwriters**”) (i) an aggregate of (a) [·] shares of common stock (the “**Firm Shares**”), par value \$0.10 per share, of the Company (the “**Common Stock**”), (b) [·] pre-funded warrants to purchase [·] shares of Common Stock at an exercise price of \$0.10 per share (the “**Pre-Funded Warrants**”) and (c) warrants to purchase [·] shares of Common Stock at an exercise price of \$[·] per share (the “**Common Warrants**”) and, collectively with the Pre-Funded Warrants and the Firm Shares, the “**Firm Securities**”). The amount and form of the Firm Securities to be purchased by the Underwriters is set forth opposite its name on Schedule A hereto. The Company also proposes to sell to the Underwriters, at the option of the Underwriters, up to (i) an additional [·] shares of Common Stock (the “**Option Shares**”), (ii) [·] Common Warrants (the “**Option Warrants**”), and, to the Representative (as defined below), warrants in an amount set forth in Section 2(g) below (the “**Representative Warrants**”) and, together with the Option Shares and the Option Warrants, the “**Option Securities**”). The Firm Shares and the Option Shares are collectively referred to herein as the “**Shares**”; the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants are collectively referred to herein as the “**Warrants**”; the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants are collectively referred to herein as the “**Warrant Shares**”; and the Firm Securities, the Option Securities and the Warrant Shares are collectively referred to herein as the “**Securities.**” The terms of the Pre-Funded Warrants are set forth in the form of Pre-Funded Warrant filed as an exhibit to the Initial Registration Statement (as defined below), the terms of the Common Warrants are set forth in the form of Common Warrant filed as an exhibit to the

Initial Registration Statement, and the terms of the Representative Warrants (as defined in Section 2(g)) are set forth in the form of Representative Warrant filed as an exhibit to the Initial Registration Statement.

H.C. Wainwright & Co., LLC ("**Wainwright**") has agreed to act as representative of the several Underwriters (in such capacity, the "**Representative**") in connection with the offering and sale of the Securities. To the extent there are no additional underwriters listed on Schedule A, the term "**Representative**" as used herein shall mean you, as Underwriter, and the term "Underwriters" shall mean either the singular or the plural, as the context requires.

The Company hereby confirms its agreements with the Underwriters as follows:

1. Representations and Warranties of the Company. The Company represents and warrants to each Underwriter as of the date of this Agreement, the Applicable Time and the Closing Date (as hereinafter defined) and each Option Closing Date (as hereinafter defined) as follows:

(a) A registration statement of the Company on Form S-1 (File No. 333-233717) in respect of the Securities and one or more pre-effective amendments thereto (collectively, the "**Initial Registration Statement**") have been filed with the Securities and Exchange Commission (the "**Commission**"); the Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, have been declared effective by the Commission in such form; other than a registration statement, if any, increasing the size of the offering (a "**Rule 462(b) Registration Statement**"), filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "**Securities Act**"), which became effective upon filing, no other document with respect to the Initial Registration Statement has heretofore been filed with the Commission; no stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued, no proceeding for that purpose has been initiated or, to the Company's knowledge, threatened by the Commission and any request on the part of the Commission for additional information from the Company has been satisfied in all material respects; any preliminary prospectus included in the Initial Registration Statement, as originally filed or as part of any amendment thereto, or filed with the Commission pursuant to Rule 424(a) of the rules and regulations of the Commission under the Securities Act is hereinafter called a "**Preliminary Prospectus**"; the various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, including (i) all documents incorporated by reference therein, (ii) all schedules and exhibits thereto and (iii) the information contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act and deemed by virtue of Rule 430A under the Securities Act to be part of the Initial Registration Statement at the time it was declared effective or such part of the Rule 462(b) Registration Statement, if any, became or hereafter becomes effective, each as amended at the time such part of the Initial Registration Statement became effective, are hereinafter collectively called the "**Registration Statement**"; the Preliminary Prospectus relating to the Securities that was included in the Registration Statement immediately prior to the Applicable Time (as defined in Section 1(c) hereof) is hereinafter called the "**Pricing Prospectus**"; such final prospectus, in the form first filed pursuant to Rule 424(b) under the Securities Act, is hereinafter called the "**Prospectus**"; and any "free writing prospectus" as defined in Rule 433 under the Securities Act relating to the Securities is hereinafter called a "**free writing prospectus**"; any reference to "amend", "amendment" or "supplement" with respect to the Registration Statement, the Rule 462 Registration Statement, any Preliminary Prospectus, the Pricing

Prospectus, the Initial Registration Statement, the Pricing Disclosure Package (as defined below) or the Prospectus shall be deemed to refer to and include any documents filed after the effective date of the Initial Registration Statement, the Registration Statement or the Rule 462 Registration Statement or the date of such Preliminary Prospectus, the Pricing Prospectus, the Pricing Disclosure Package or the Prospectus, as the case may be under the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder (collectively, the “**Exchange Act**”) that are deemed to be incorporated by reference therein; all references in this Agreement to financial statements and schedules and other information which are “contained,” “included” or “stated” in, or “part of” the Registration Statement, the Preliminary Prospectus, the Pricing Prospectus, the Pricing Disclosure Package or the Prospectus, and all other references of like import, shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Preliminary Prospectus, the Pricing Prospectus, the Pricing Disclosure Package or the Prospectus, as the case may be; all references in this Agreement to (i) the Registration Statement, the Preliminary Prospectus, the Pricing Prospectus or the Prospectus, any amendments or supplements to any of the foregoing, or any free writing prospectus, shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”) and (ii) the Prospectus shall be deemed to include any “electronic Prospectus” provided for use in connection with the offering of the Securities as contemplated by Section 3(n) of this Agreement.

(b) At the respective times the Initial Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments thereto became effective and at the Closing Date (and, if any Option Securities are purchased, at each 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 requirements of the Securities Act and the rules and regulations of the Commission thereunder (the “**Rules and Regulations**”).

(c) (1) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; (2) the Pricing Disclosure Package, as of the Applicable Time, did not include an untrue statement of a material fact or 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; and (3) as of the date of the Prospectus and any amendments or supplements thereto and at the Closing Date (and, if any Option Securities are purchased, at each Option Closing Date (as defined herein)), neither the Prospectus nor any amendment or supplement thereto 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 light of the circumstances under which they were made, not misleading; provided that the representations and warranties in clauses (1), (2) and (3) above shall not apply to statements in or omissions from the Registration Statement, Pricing Disclosure Package or the Prospectus made in reliance upon and in strict conformity with information furnished to the Company in writing by the Underwriter expressly for use in the Registration Statement, Pricing Disclosure Package or the Prospectus or any amendment or supplement thereto, it being understood and agreed that the only such information provided by the Underwriter is that

described as such in Section 9(b) hereof. No order preventing or suspending the use of any Preliminary Prospectus, the Pricing Prospectus, the Prospectus or any free writing prospectus has been issued by the Commission;

As used herein, “**Applicable Time**” is [:00 a.m./p.m.] (Eastern time) on September [•], 2019. As used herein, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, and “**Pricing Disclosure Package**” means the Preliminary Prospectus, as amended or supplemented immediately prior to the Applicable Time, together with the free writing prospectuses, if any, identified on Schedule B hereto and the pricing information set forth on Schedule C hereto. As used herein, “**Road Show**” means a “road show” (as defined in Rule 433 under the Securities Act) relating to the offering of the Securities contemplated hereby that is a “written communication” (as defined in Rule 405 under the Securities Act).

(d) Each Preliminary Prospectus, Pricing Prospectus, and the Prospectus filed as part of the Initial Registration Statement as originally filed or as part of any amendment thereto, or filed pursuant to Rule 424 under the Securities Act, complied when so filed in all material respects with the requirements of the Securities Act and the Rules and Regulations and each Preliminary Prospectus, Pricing Prospectus, and the Prospectus delivered to the Underwriter for use in connection with this offering was identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. The documents incorporated or deemed to be incorporated by reference in the Registration Statement, the Pricing Prospectus and the Prospectus, at the time they were or hereafter are filed with the Commission, or became effective under the Exchange Act, as the case may be, complied and will comply in all material respects with the requirements of the Exchange Act. There are no contracts or other documents required to be described in the Preliminary Prospectus, Pricing Prospectus, or the Prospectus or to be filed as an exhibit to the Registration Statement which have not been described or filed as required.

(e) Free Writing Prospectuses; Road Show. The Company is not, and at the time of filing the Initial Registration Statement, was not an “ineligible issuer,” as defined under Rule 405 under the Securities Act. Each free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of Rule 433 under the Securities Act, including timely filing with the Commission or retention where required and legending, and each such free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities 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 Prospectus or any preliminary prospectus and not superseded or modified. Except for the free writing prospectuses, if any, identified in Schedule B, and electronic road shows, if any, furnished to you before first use, the Company has not prepared, used or referred to, and will not, without your prior written consent, prepare, use or refer to, any free writing prospectus. Each Road Show, when considered together with the Pricing Disclosure Package, does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) Distribution of Offering Material By the Company. Prior to the later of (i) the expiration or termination of the option granted to the several Underwriters in Section 2, and (ii) the completion of the Underwriters' distribution, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Securities other than the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(g) Financial Information. The consolidated financial statements of the Company included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, if any, together with the related notes and schedules, present fairly, in all material respects, the consolidated financial position of the Company and the Subsidiaries (as defined below) as of the dates indicated and the consolidated results of operations, cash flows and changes in stockholders' equity of the Company for the periods specified and have been prepared in compliance with the requirements of the Securities Act and Exchange Act, and in conformity with U.S. generally accepted accounting principles ("GAAP") applied on a consistent basis during the periods involved; there are no financial statements (historical or pro forma) that are required to be included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus that are not included or incorporated by reference as required; the Company and the Subsidiaries (as defined below) do not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not described in the Registration Statement (excluding the exhibits thereto), the Pricing Disclosure Package and the Prospectus; and all disclosures contained or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus and any free writing prospectuses, if any, regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission) comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K under the Securities Act, to the extent applicable. The consolidated financial data set forth in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus fairly present the information set forth therein on a basis consistent with that of the consolidated audited financial statements incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The interactive data in eXtensible Business Reporting Language incorporated by reference in the Registration Statement and the Prospectus fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(h) Conformity with EDGAR Filing. Each Preliminary Prospectus and Prospectus delivered to the Underwriter for use in connection with the sale of the Securities pursuant to this Agreement was and will be identical to the versions of each Preliminary Prospectus and Prospectus transmitted to the Commission for filing via EDGAR, except to the extent permitted by Regulation S-T.

(i) Organization. The Company and each of its Subsidiaries are duly organized, validly existing as a corporation and in good standing under the laws of their respective jurisdictions of organization. The Company and each of its Subsidiaries are duly licensed or qualified as a foreign corporation for transaction of business and in good standing under the laws of each other jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such license or qualification, and have all corporate power and authority necessary to own or hold their respective properties and to conduct their respective businesses as described in the Registration Statement, the Pricing Disclosure Package and the

Prospectus, and as currently carried on, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, have a material adverse effect on the assets, business, operations, earnings, properties, condition (financial or otherwise), prospects, stockholders' equity or results of operations of the Company and the Subsidiaries taken as a whole, or prevent or materially interfere with consummation of the transactions contemplated hereby (a "**Material Adverse Effect**").

(j) Subsidiaries. The subsidiaries set forth on Schedule D (collectively, the "**Subsidiaries**"), are the Company's only significant subsidiaries (as such term is defined in Rule 1-02 of Regulation S-X promulgated by the Commission). Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company owns, directly or indirectly, all of the equity interests of the Subsidiaries free and clear of any lien, charge, security interest, encumbrance, right of first refusal or other restriction, and all the equity interests of the Subsidiaries are validly issued and are fully paid, nonassessable and free of preemptive and similar rights. No Subsidiary is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such Subsidiary's capital stock, from repaying to the Company any loans or advances to such Subsidiary from the Company or from transferring any of such Subsidiary's property or assets to the Company or any other Subsidiary of the Company.

(k) No Violation or Default. Neither the Company nor any of its Subsidiaries is (i) in violation of its certificate of incorporation, charter or by-laws or any other organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound or to which any of the property or assets of the Company or any of its Subsidiaries are subject; or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any Governmental Authority (as defined below), except, in the case of each of clauses (ii) and (iii) above, for any such violation or default that would not, individually or in the aggregate, have a Material Adverse Effect. To the Company's knowledge, no other party under any material contract or other agreement to which it or any of its Subsidiaries is a party is in default in any respect thereunder where such default would have a Material Adverse Effect.

(l) No Material Adverse Change. Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package, the Prospectus and the free writing prospectuses, if any (including any document deemed incorporated by reference therein), there has not been (i) any Material Adverse Effect or the occurrence of any development that would reasonably be expected to have a Material Adverse Effect, (ii) any transaction which is material to the Company and the Subsidiaries taken as a whole, (iii) any obligation or liability, direct or contingent (including any off-balance sheet obligations), incurred by the Company or any Subsidiary, which is material to the Company and the Subsidiaries taken as a whole, (iv) any material change in the capital stock or outstanding long-term indebtedness of the Company or any of its Subsidiaries or (v) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company or any Subsidiary, other than in each case above in the ordinary course of business or as otherwise disclosed in the Registration Statement, the

(m) Capitalization. The issued and outstanding shares of capital stock of the Company have been validly issued, are fully paid and nonassessable and, other than as disclosed in the Registration Statement, the Pricing Disclosure Package or the Prospectus, are not subject to any preemptive rights, rights of first refusal or similar rights. The Company has an authorized, issued and outstanding capitalization as set forth in the Registration Statement and the Prospectus as of the dates referred to therein (other than the grant of additional options under the Company's existing option plans, or changes in the number of outstanding shares of Common Stock of the Company due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible into, Common Stock outstanding on the date hereof) and such authorized capital stock conforms in all material respects to the description thereof set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The description of the securities of the Company in the Registration Statement, the Pricing Disclosure Package and the Prospectus is complete and accurate in all material respects. Except as disclosed in or contemplated by the Registration Statement, the Pricing Disclosure Package or the Prospectus, as of the date referred to therein, the Company does not have outstanding any options to purchase, or any rights or warrants to subscribe for, or any securities or obligations convertible into, or exchangeable for, or any contracts or commitments to issue or sell, any shares of capital stock or other securities.

(n) Authorization; Enforceability. The Company has full legal right, power and authority to enter into this Agreement, the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants and perform the transactions contemplated hereby. This Agreement has been duly authorized, executed and delivered by the Company and is a legal, valid and binding agreement of the Company enforceable against the Company in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and by general equitable principles. When issued, the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants will constitute the legal, valid and binding agreement of the Company, including to issue and sell, upon exercise thereof and payment of the respective exercise prices therefor, the number and type of securities of the Company called for thereby in accordance with the terms thereof, and enforceable against the Company in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and by general equitable principles.

(o) Authorization of the Securities. The Shares have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be duly and validly issued, fully paid and nonassessable, free and clear of any pledge, mortgage, hypothecation, lien, encumbrance, security interest or other claim, including any statutory or contractual preemptive rights, resale rights, rights of first refusal or other similar rights. The Warrant Shares when issued, paid for and delivered upon due exercise of the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants, as applicable, have been duly authorized for issuance and sale pursuant to the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants, as applicable, and, when issued and delivered by the Company against

payment therefor pursuant to the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants, as applicable, will be duly and validly issued, fully paid and nonassessable, free and clear of any pledge, mortgage, hypothecation, lien, encumbrance, security interest or other claim, including any statutory or contractual preemptive rights, resale rights, rights of first refusal or other similar rights. The Warrant Shares have been reserved for issuance. The Securities, when issued, will conform in all material respects to the description thereof set forth in or incorporated into the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(p) No Consents Required. No consent, approval, authorization, order, registration or qualification of or with any Governmental Authority is required for the execution, delivery and performance by the Company of this Agreement, the Pre-Funded Warrants, the Common Warrants, the Option Warrants and the Representative Warrants and the issuance and sale by the Company of the Securities, except for such consents, approvals, authorizations, orders and registrations or qualifications as may be required under applicable state securities laws or by the laws and rules of the Financial Industry Regulatory Authority (“**FINRA**”) or the Nasdaq Stock Market (“**Nasdaq**”) in connection with the sale of the Securities.

(q) No Preferential Rights. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus no person has the right, contractual or otherwise, to require the Company to register under the Securities Act, any Common Stock or shares of any other capital stock or other securities of the Company, or to include any such shares or other securities in the Registration Statement or the offering contemplated thereby, whether as a result of the filing or effectiveness of the Registration Statement or the sale of the Securities as contemplated thereby or otherwise.

(r) Independent Public Accounting Firms. KPMG LLP (the “**Accountant**”), whose report on the consolidated financial statements of the Company are filed with the Commission as part of the Company’s most recent Annual Report on Form 10-K filed with the Commission and incorporated by reference into the Registration Statement, the Pricing Disclosure Package and the Prospectus, are and, during the periods covered by its report, was an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board (United States). To the Company’s knowledge, the Accountant is not in violation of the auditor independence requirements of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”).

(s) No Litigation. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, there are no actions, suits or proceedings by or before any Governmental Authority pending, nor, to the Company’s knowledge, any audits or investigations by or before any Governmental Authority, to which the Company or a Subsidiary is a party or to which any property of the Company or any of its Subsidiaries is the subject that, individually or in the aggregate, if determined adversely to the Company or its Subsidiaries, would reasonably be expected to have a Material Adverse Effect and, to the Company’s knowledge, no such actions, suits, proceedings, audits or investigations are threatened or contemplated by any Governmental Authority or threatened by others; and (i) there are no current or pending audits, investigations, actions, suits or proceedings by or before any Governmental Authority that are required under the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package or

Prospectus that are not so described; and (ii) there are no contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement that are not so filed.

(t) **Consents and Permits.** As to each product subject to the jurisdiction of the U.S. Food and Drug Administration (“**FDA**”) or any non-U.S. counterpart that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a “**Product**”), such Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company or its Subsidiaries in compliance with all applicable Health Care Laws relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not reasonably be expected to have a Material Adverse Effect. There is no pending, completed or, to the Company’s knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable Health Care Laws. The Company has not been informed by the FDA or any non-U.S. counterpart that the FDA or any non-U.S. counterpart will prohibit the marketing, sale, license or use in the United States or in any other territory any product proposed to be developed, produced or marketed by the Company or any Subsidiary nor has the FDA or any non-U.S. counterpart expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company or any Subsidiary. To the Company’s knowledge, there are no legal or governmental proceedings relating to any Health Care Law pending or threatened to which the Company is a party, nor is it aware of any material violations of such acts or regulations by the Company, which would have a Material Adverse Effect. For purposes of this Agreement, “**Health Care Laws**” means: (i) the Federal Food, Drug, and Cosmetic Act and the regulations promulgated thereunder; (ii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the U.S. Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) (42 U.S.C. Section 1320d et seq.), the exclusion laws (42 U.S.C. § 1320a-7), the civil

monetary penalties law (42 U.S.C. § 1320a-7a), the statutes, regulations and directives of applicable government funded or sponsored healthcare programs, and the regulations promulgated pursuant to such statutes; (iii) the Standards for Privacy of Individually Identifiable Health Information (the “Privacy Rule”), the Security Standards, and the Standards for Electronic Transactions and Code Sets promulgated under HIPAA, the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the regulations promulgated thereunder and any state or non-U.S. counterpart thereof or other law or regulation the purpose of which is to protect the privacy of individuals or prescribers; (iv) Medicare (Title XVIII of the Social Security Act); (v) Medicaid (Title XIX of the Social Security Act); and (vi) any and all other applicable health care laws and regulations.

(u) **Regulatory Filings.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, neither the Company nor any of its Subsidiaries has failed to file with the applicable Governmental Authority (including the FDA or any foreign, federal, state or local Governmental Authority performing functions similar to those performed by the FDA) any required filing, declaration, listing, registration, report or submission, except for such failures that, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect; except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, all such filings, declarations, listings, registrations, reports or submissions were in material compliance with applicable laws when filed and no deficiencies have been asserted by any applicable regulatory authority with respect to any such filings, declarations, listings, registrations, reports or submissions, except for any deficiencies that, individually or in the aggregate, would not have a Material Adverse Effect. The Company has operated and currently is, in all material respects, in compliance with the United States Federal Food, Drug, and Cosmetic Act, all applicable rules and regulations of the FDA, and other federal, state, local and foreign Governmental Authority exercising comparable authority. The Company has no knowledge of any studies, tests or trials not described in the Registration Statement, the Pricing Disclosure Package and the Prospectus the results of which reasonably call into question in any material respect the results of the studies, tests and trials described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(v) **Intellectual Property.** Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and its Subsidiaries own, possess, license or have other rights to use, or could obtain on commercially reasonable terms, all foreign and domestic patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, technology, Internet domain names, know-how and other intellectual property (collectively, the “**Intellectual Property**”), necessary for the conduct of their respective businesses as now conducted except to the extent that the failure to own, possess, license or otherwise hold adequate rights to use such Intellectual Property would not, individually or in the aggregate, have a Material Adverse Effect. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus (i) there are no rights of third parties to any such Intellectual Property owned by the Company and its Subsidiaries, except for licenses granted in the ordinary course to third parties, or that could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; (ii) to the Company’s knowledge, there is no infringement by third parties of any such Intellectual Property; (iii) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the Company’s and its Subsidiaries’ rights in or to any such

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Intellectual Property, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim; (iv) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property; (v) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others that the Company and its Subsidiaries infringe or otherwise violate any patent, trademark, copyright, trade secret or other proprietary rights of others; (vi) to the Company’s knowledge, there is no third-party U.S. patent or published U.S. patent application which contains claims for which an Interference Proceeding (as defined in 35 U.S.C. § 135), or the equivalent in any other jurisdiction, has been commenced against any patent or patent application described in the Registration Statement, the Pricing Disclosure Package and the Prospectus as being owned by or licensed to the Company; and (vii) the Company and its Subsidiaries have complied with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or such Subsidiary, and all such agreements are in full force and effect, except, in the case of any of clauses (i)-(vii) above, for any such infringement by third parties or any such pending or threatened suit, action, proceeding or claim as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(w) **Clinical Studies.** The preclinical studies and tests and clinical trials described in the Registration Statement, the Pricing Disclosure Package and the Prospectus were, and, if still pending, are being conducted in all material respects in accordance with the experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company; the descriptions of such studies, tests and trials, and the results thereof, contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus are accurate and complete in all material respects; the Company is not aware of any tests, studies or trials not described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the results of which reasonably call into question the results of the tests, studies and trials described in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and the Company has not received any written notice or correspondence from the FDA or any foreign, state or local Governmental Authority exercising comparable authority or any institutional review board or comparable authority requiring the termination, suspension, clinical hold or material modification of any tests, studies or trials.

(x) **No Material Defaults.** Neither the Company nor any of the Subsidiaries has defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. The Company has not (i) failed to pay any dividend or sinking fund installment on preferred shares or (ii) defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect.

(y) **Certain Market Activities.** Neither the Company nor any of its subsidiaries has taken, directly or indirectly, any action designed to or that might cause or result in stabilization or manipulation of the price of the Common Stock or of any other securities, including any “reference security” (as defined in Rule 100 of Regulation M under the Exchange Act (“**Regulation M**”)) with respect to the Common Stock, whether to facilitate the sale or resale of the Securities or

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otherwise, and has taken no action which would directly or indirectly violate Regulation M or applicable foreign securities laws and rules.

(z) Broker/Dealer Relationships. Neither the Company nor any of the Subsidiaries (i) is required to register as a “broker” or “dealer” in accordance with the provisions of the Exchange Act or (ii) directly or indirectly through one or more intermediaries, controls or is a “person associated with a member” or “associated person of a member” (within the meaning set forth in the FINRA Manual).

(aa) No Reliance. The Company has not relied upon the Underwriters or legal counsel for the Underwriters for any legal, tax or accounting advice in connection with the offering and sale of the Securities.

(bb) Taxes. The Company and each of its Subsidiaries have filed all federal, state, local and foreign tax returns which have been required to be filed and paid all taxes shown thereon through the date hereof, to the extent that such taxes have become due and are not being contested in good faith, except where the failure to so file or pay would not reasonably be expected to have a Material Adverse Effect. Except as otherwise disclosed in or contemplated by the Registration Statement, the Pricing Disclosure Package or the Prospectus, no tax deficiency has been determined adversely to the Company or any of its Subsidiaries which has had, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect. The Company has no knowledge of any federal, state, or other governmental tax deficiency, penalty or assessment which has been or might be asserted or threatened against it which would reasonably be expected to have a Material Adverse Effect.

(cc) Title to Real and Personal Property. The Company and its Subsidiaries do not own any real property. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the Company and its Subsidiaries have good and valid title to all personal property described in the Registration Statement, the Pricing Disclosure Package or the Prospectus as being owned by them that are material to the businesses of the Company or such Subsidiary, in each case free and clear of all mortgages, liens, encumbrances and claims, except those matters that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and any of its Subsidiaries or (ii) would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Any real or personal property described in the Registration Statement, the Pricing Disclosure Package or the Prospectus as being leased by the Company and any of its Subsidiaries is held by them under valid, existing and enforceable leases, except those that (A) do not materially interfere with the use made or proposed to be made of such property by the Company or any of its Subsidiaries or (B) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Each of the leased properties of the Company and its Subsidiaries complies with all applicable codes, laws and regulations (including, without limitation, building and zoning codes, laws and regulations and laws relating to access to such properties), except if and to the extent disclosed in the Registration Statement, the Pricing Disclosure Package or the Prospectus or except for such failures to comply that would not, individually or in the aggregate, reasonably be expected to interfere in any material respect with the use made and proposed to be made of such property by the Company and its Subsidiaries or otherwise have a Material Adverse Effect. None of the Company or its subsidiaries has received from any Governmental Authorities any notice of any condemnation of, or zoning change affecting, the properties of the Company and its Subsidiaries, and the Company knows of

no such condemnation or zoning change which is threatened, except for such that would not reasonably be expected to interfere in any material respect with the use made and proposed to be made of such property by the Company and its Subsidiaries or otherwise have a Material Adverse Effect, individually or in the aggregate.

(dd) Environmental Laws. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the Company and its Subsidiaries (i) are in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, “**Environmental Laws**”); (ii) have received and are in compliance with all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses as described in the Registration Statement, the Pricing Disclosure Package or the Prospectus; and (iii) have not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except, in the case of any of clauses (i), (ii) or (iii) above, for any such failure to comply or failure to receive required permits, licenses, other approvals or liability as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ee) Disclosure Controls. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the Company and each of its Subsidiaries maintain systems of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management’s general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company’s internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control over financial reporting (other than as set forth in the Registration Statement, Pricing Disclosure Package or Prospectus). Since the date of the latest audited financial statements of the Company included in the Prospectus, there has been 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 (other than as set forth in the Registration Statement, Pricing Disclosure Package or Prospectus). Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 and 15d-15) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company and each of its Subsidiaries is made known to the certifying officers by others within those entities, particularly during the period in which the Company’s Annual Report on Form 10-K or Quarterly Report on Form 10-Q, as the case may be, is being prepared. The Company’s certifying officers have evaluated the effectiveness of the Company’s disclosure controls and procedures as of December 31, 2018 (such date, the “**Evaluation Date**”). The Company presented in its Form 10-K for the fiscal year most recently ended the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date and except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the disclosure controls

and procedures are effective. Since the Evaluation Date, there have been no significant changes in the Company's internal controls (as such term is defined in Item 307(b) of Regulation S-K under the Securities Act).

(ff) Sarbanes-Oxley. Since February 13, 2018, 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 in all material respects with any applicable provisions of the Sarbanes-Oxley Act and the rules and regulations promulgated thereunder.

(gg) Brokers. Neither the Company nor any of the Subsidiaries has incurred any liability for any finder's fees, brokerage commissions or similar payments in connection with the transactions herein contemplated, except as may otherwise exist with respect to or pursuant to this Agreement.

(hh) Labor Disputes and Matters. Neither the Company or any of its Subsidiaries employs any person represented by a union or collective bargaining unit. No labor disturbance by or dispute with employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is threatened which would reasonably be expected to have a Material Adverse Effect.

(ii) Investment Company Act. Neither the Company nor any of the Subsidiaries is, or will be, either after receipt of payment for the Securities or after the application of the proceeds therefrom as described under "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package or the Prospectus, required to register as an "investment company" or an entity "controlled" by an "investment company," as such terms are defined in the Investment Company Act of 1940, as amended (the "**Investment Company Act**").

(jj) Operations. The operations of the Company and its Subsidiaries are and have been conducted at all times in material compliance with applicable financial record keeping and reporting requirements of applicable law, including the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions to which the Company or its Subsidiaries are subject, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Authority (collectively, the "**Money Laundering Laws**"); and no action, suit or proceeding by or before any Governmental Authority involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(kk) Off-Balance Sheet Arrangements. There are no transactions, arrangements and other relationships between and/or among the Company, and/or any of its affiliates and any unconsolidated entity, including, but not limited to, any structural finance, special purpose or limited purpose entity (each, an "**Off-Balance Sheet Transaction**") that would affect materially the Company's liquidity or the availability of or requirements for its capital resources, including those Off-Balance Sheet Transactions described in the Commission's Statement about Management's Discussion and Analysis of Financial Conditions and Results of Operations (Release Nos. 33-8056; 34-45321; FR-61), required to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus which have not been described as required.

(ll) ERISA. To the knowledge of the Company, each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), that is maintained, administered or contributed to by the Company or any of its affiliates for employees or former employees of the Company and any of its Subsidiaries has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the “Code”) except where the failure to so maintain in compliance would result in a Material Adverse Effect; no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred which would result in a material liability to the Company with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no “accumulated funding deficiency” as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions.

(mm) Forward-Looking Statements. Each financial or operational projection or other “forward-looking statement” (as defined by Section 27A of the Securities Act or Section 21E of the Exchange Act, or as defined by any other applicable securities laws) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus (i) was so included by the Company in good faith and with reasonable basis after due consideration by the Company of the underlying assumptions, estimates and other applicable facts and circumstances and (ii) is accompanied by meaningful cautionary statements identifying those factors that could cause actual results to differ materially from those in such forward-looking statement. No such statement was made with the knowledge of an executive officer or director of the Company that it was false or misleading.

(nn) Margin Rules. Neither the issuance, sale and delivery of the Securities nor the application of the proceeds thereof by the Company as described in the Registration Statement and the Prospectus will violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(oo) Insurance. The Company and each of its Subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as the Company and each of its Subsidiaries reasonably believe are adequate for the conduct of their business and as is customary for companies engaged in similar businesses in similar industries.

(pp) No Improper Practices. (i) Neither the Company nor the Subsidiaries, nor any director, officer, or employee of the Company or any Subsidiary nor, to the Company’s knowledge, any agent, affiliate or other person acting on behalf of the Company or any Subsidiary has, in the past five years, made any unlawful contributions to any candidate for any political office (or failed fully to disclose any contribution in violation of applicable law) or made any contribution or other payment to any official of, or candidate for, any federal, state, municipal, or foreign office or other person charged with similar public or quasi-public duty in violation of any applicable law or of the character required to be disclosed in the Prospectus; (ii) no relationship, direct or indirect, exists between or among the Company or any Subsidiary or any affiliate of any of them, on the one hand, and the directors, officers and stockholders of the Company or any Subsidiary, on the other hand,

that is required by the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that is not so described; (iii) no relationship, direct or indirect, exists between or among the Company or any Subsidiary or any affiliate of them, on the one hand, and the directors, officers, or stockholders of the Company or any Subsidiary, on the other hand, that is required by the rules of FINRA to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that is not so described; (iv) except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no material outstanding loans or advances or material guarantees of indebtedness by the Company or any Subsidiary to or for the benefit of any of their respective officers or directors or any of the members of the families of any of them; and (v) the Company has not offered, or caused any placement agent to offer, Common Stock to any person with the intent to influence unlawfully (A) a customer or supplier of the Company or any Subsidiary to alter the customer's or supplier's level or type of business with the Company or any Subsidiary or (B) a trade journalist or publication to write or publish favorable information about the Company or any Subsidiary or any of their respective products or services, and, (vi) neither the Company nor any Subsidiary nor any director, officer or employee of the Company or any Subsidiary nor, to the Company's knowledge, any agent, affiliate or other person acting on behalf of the Company or any Subsidiary has (A) violated or is in violation of any applicable provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or any other applicable anti-bribery or anti-corruption law (collectively, "**Anti-Corruption Laws**"), (B) promised, offered, provided, attempted to provide or authorized the provision of anything of value, directly or indirectly, to any person for the purpose of obtaining or retaining business, influencing any act or decision of the recipient or securing any improper advantage, or (C) made any payment of funds of the Company or any Subsidiary or received or retained any funds in violation of any Anti-Corruption Laws.

(qq) No Conflicts. Neither the execution of this Agreement, nor the issuance, offering or sale of the Securities, nor the consummation of any of the transactions contemplated herein and therein, nor the compliance by the Company with the terms and provisions hereof and thereof will conflict with, or will result in a breach of, any of the terms and provisions of, or has constituted or will constitute a default under, or has resulted in or will result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any contract or other agreement to which the Company may be bound or to which any of the property or assets of the Company is subject, except (i) such conflicts, breaches or defaults as may have been waived and (ii) such conflicts, breaches and defaults that would not reasonably be expected to have a Material Adverse Effect; nor will such action result (x) in any violation of the provisions of the organizational or governing documents of the Company, or (y) in any violation of the provisions of any statute or any order, rule or regulation applicable to the Company or of any Governmental Authority having jurisdiction over the Company other than, with respect to clause (y) only, any violation that would not have a Material Adverse Effect; provided, however, that such violation shall not have any adverse effect with respect to the Underwriter.

(rr) Sanctions. (i) The Company represents that, neither the Company nor any of its Subsidiaries (collectively, the "**Entity**") or any director, officer, employee, agent, affiliate or representative of the Entity, is a government, individual, or entity (in this paragraph (rr), "**Person**") that is, or is owned or controlled by a Person that is:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control ("OFAC"), the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authorities, including designation on OFAC's Specially Designated Nationals and Blocked Persons List, OFAC's Foreign Sanctions Evaders List or other similar applicable legislation or rules (as amended, collectively, "**Sanctions**"), nor

(B) located, organized or resident in a country or territory that is the subject of Sanctions that broadly prohibit dealings with that country or territory (including Cuba, Iran, North Korea, Sudan, Syria and the Crimea Region of the Ukraine) (the "**Sanctioned Countries**").

(ii) The Entity represents and covenants that it will not, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions or is a Sanctioned Country; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) The Entity represents and covenants that, except as detailed in the Registration Statement and the Prospectus, for the past 5 years, it has not engaged in, is not now engaging in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions or is or was a Sanctioned Country.

(ss) Compliance with Laws. Each of the Company and its Subsidiaries: (i) is and at all times has been in compliance with all statutes, rules, or regulations 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 manufactured or distributed by the Company or its Subsidiaries ("**Applicable Laws**"), except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (ii) 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 other Governmental Authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ("**Authorizations**"); (iii) possesses all Authorizations and such Authorizations are valid and in full force and effect and are not in violation of any term of any such Authorizations except where the failure to be so would have a Material Adverse Effect; (iv) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit,

investigation or proceeding; (v) has not received notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such Governmental Authority is considering such action; (vi) 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 complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (vii) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post sale warning, "dear healthcare provider" letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company's knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

(tt) Statistical and Market-Related Data. All statistical, demographic and market-related data included in the Registration Statement, the Pricing Disclosure Package or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources.

(uu) Stock Exchange Listing. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is listed, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from Nasdaq. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the Company has not received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, to the Company's knowledge, it is in compliance with all applicable listing requirements of Nasdaq.

(vv) Related-Party Transactions. There are no business relationships or related-party transactions involving the Company or any of its subsidiaries or any other person required to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that have not been described as required.

(ww) FINRA Matters. All of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its counsel, its officers and directors and the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with the offering of the Securities is true, complete, correct and compliant with FINRA's rules and any letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rules is true, complete and correct.

(xx) Parties to Lock-Up Agreements. The Company has furnished to the Underwriters a letter agreement in the form attached hereto as Exhibit A (the "**Lock-up Agreement**") from each of the persons listed on Exhibit B. Such Exhibit B lists under an appropriate caption the directors and executive officers and certain other stockholders of the Company. If any additional persons shall become directors or executive officers of the Company prior to the end of the Company Lock-

up Period (as defined below), the Company shall cause each such person, prior to or contemporaneously with their appointment or election as a director or executive officer of the Company, to execute and deliver to Wainwright a Lock-up Agreement.

(aaa) No Rights to Purchase Shares. Except as set forth in the Registration Statement, the Pricing Disclosure Package or the Prospectus, the issuance and sale of the Securities as contemplated hereby will not cause any holder of any shares of capital stock, securities convertible into or exchangeable or exercisable for capital stock or options, warrants or other rights to purchase shares or any other securities of the Company to have any right to acquire any shares of capital stock of the Company.

(ccc) [Reserved]

(ddd) Integration. Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the offering of the Securities to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

Any certificate signed by any officer of the Company or any of its subsidiaries and delivered to any Underwriter or to counsel for the Underwriters in connection with the offering, or the purchase and sale, of the Securities shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

The Company has a reasonable basis for making each of the representations set forth in this Section 1. The Company acknowledges that the Underwriters and, for purposes of the opinions to be delivered pursuant to Section 6 hereof, counsel to the Company and counsel to the Underwriters, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

2. **Purchase, Sale and Delivery of the Securities.**

(a) The Firm Securities. Subject to the terms and conditions herein set forth, the Company agrees to sell to the several Underwriters, and on the basis of the representations, warranties and agreements herein contained and upon the terms but subject to the conditions herein set forth, the Underwriters agree to purchase from the Company, (i) at a combined purchase price for one Share and a Common Warrant of \$[·], which shall be allocated as \$[·] per Share (the “**Per Share Purchase Price**”) and \$[·] per Common Warrant (the “**Per Common Warrant Purchase Price**”) and (ii) at a combined purchase price for one Pre-Funded Warrant and a Common Warrant of \$[·] which shall be allocated as \$[·] per Pre-Funded Warrant and \$[·] per Common Warrant.

(b) The Closing Date. Delivery of book-entry entitlements for the Firm Securities to be purchased by the Underwriters and payment therefor shall be made at the offices of McDermott Will & Emery, LLP, 340 Madison Ave, New York, NY 10173 (or such other place as may be agreed to by the Company and the Representative) at 10:00 a.m. Eastern time, on September [·], 2019, or such other time and date not later than 1:00 p.m. Eastern time, on September [·], 2019, as the Representative shall designate by notice to the Company (the time and date of such closing are called the “**Closing Date**”). The Company hereby acknowledges that circumstances under

which the Representative may provide notice to postpone the Closing Date as originally scheduled include, but are not limited to, any determination by the Company or the Representative to recirculate to the public copies of an amended or supplemented Prospectus or a delay as contemplated by the provisions of Section 10.

(c) The Option Shares and Option Warrants; Option Closing Date. In addition, on the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Company hereby grants an option to the several Underwriters to purchase, severally and not jointly, i) up to any combination of [·] Option Shares and/or [·] Option Warrants at the Per Share Purchase Price and/or the Per Common Warrant Purchase Price, respectively. The option granted hereunder may be exercised at any time and from time to time in whole or in part upon notice by the Representative to the Company, which notice may be given at any time within 30 days from the date of this Agreement. Such notice shall set forth (i) the aggregate number of Option Shares and/or Option Warrants as to which the Underwriters are exercising the option and (ii) the time, date and place at which book-entry entitlements for the Option Shares and/or Option Warrants will be delivered (which time and date may be simultaneous with, but not earlier than, the Closing Date; and in the event that such time and date are simultaneous with the Closing Date, the term "Closing Date" shall refer to the time and date of delivery of book-entry entitlements for the Firm Securities and such Option Securities). Any such time and date of delivery, if subsequent to the Closing Date, is called an "**Option Closing Date**," shall be determined by the Representative and shall not be earlier than three or later than five full business days after delivery of such notice of exercise.

If any Option Share and/or Option Warrants are to be purchased, (a) each Underwriter agrees, severally and not jointly, to purchase the number of Option Securities (subject to such adjustments to eliminate fractional shares as the Representative may determine) that bears the same proportion to the total number of Option Securities to be purchased as the number of Firm Securities set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Securities and (b) the Company agrees to sell the number of Option Securities set forth in the paragraph "Introductory" of this Agreement (subject to such adjustments to eliminate fractional shares as the Representative may determine). The Representative may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company.

(d) Public Offering of the Securities. The Representative hereby advises the Company that the Underwriters intend to offer for sale to the public, initially on the terms set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, their respective portions of the Securities as soon after this Agreement has been executed as the Representative, in its sole judgment, has determined is advisable and practicable.

(e) Payment for the Securities. Payment for the Firm Securities shall be made at the Closing Date (and, if applicable, the Option Closing Date) by wire transfer of immediately available funds to the order of the Company. It is understood that the Representative has been authorized, for its own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price for, the Firm Securities and any Option Securities the Underwriters have agreed to purchase. Wainwright, individually and not as the Representative of the Underwriters, may (but shall not be obligated to) make payment for any Firm Securities and any Option Securities to be purchased by any Underwriter whose funds shall not have been received by the Representative by the Closing

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Date or the applicable Option Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

(f) Delivery of the Securities. The Company shall deliver, or cause to be delivered through the facilities of DTC unless the Representative shall otherwise instruct, to the Representative for the accounts of the several Underwriters, book-entry entitlements for the Firm Shares at the Closing Date, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Company will deliver the certificates for the Pre-Funded Warrants, against payment of the purchase price therefor, in definitive form, in such denominations and registered in such names as the Underwriter or its designees request, to the purchasers thereof on the Closing Date. In the event that a purchaser delivers a Notice of Exercise (as defined in the Pre-Funded Warrants) on or prior to 12:00 P.M., New York time on the Closing Date, to exercise any Pre-Funded Warrants between the date hereof and the Closing Date, the Company shall deliver Warrant Shares with respect to such Pre-Funded Warrants to such purchaser on the Closing Date in connection with such Notice of Exercise. The Firm Shares and/or Pre-Funded Warrants will be issued separately and may be transferred separately immediately upon issuance.

The Company shall also deliver, or cause to be delivered through the facilities of DTC unless the Representative shall otherwise instruct, to the Representative for the accounts of the several Underwriters, book-entry entitlements for the Option Shares and/or Option Warrants the Underwriters have agreed to purchase at the Closing Date or the applicable Option Closing Date, as the case may be, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Option Shares and/or Option Warrants will be issued separately and may be transferred separately immediately upon issuance.

If the Representative so elects, delivery of the Shares will be made by credit to the accounts designated by the Representative through DTC's full fast transfer or DWAC programs. Time shall be of the essence, and delivery at the time and place specified in this Agreement is a further condition to the obligations of the Underwriters.

(g) Representative Warrants. The Company shall issue to the underwriters or their designees on each of the Closing Date and each Option Closing Date, the Representative Warrants, which represent warrants to purchase that number of shares of Common Stock equal to 7.0% of the aggregate number of (i) shares of Common Stock issued, and (ii) shares of Common Stock issuable upon exercise of the Pre-Funded Warrants issued on each of the Closing Date and each Option Closing Date. The Representative Warrants shall be in the form filed as an exhibit to the Initial Registration Statement, shall be exercisable, in whole or in part, immediately and expire on the five-year anniversary of the date of effectiveness of the Initial Registration Statement at an initial exercise price per share of Common Stock of \$[·], which is equal to 125% of the initial public offering price of the shares of Common Stock. The Representative Warrants shall be subject to the limitation on exercise set forth in FINRA Rule 5110(f)(2)(G)(i); provided, however that pursuant to FINRA Rule 5110(g)(1) the Representative Warrants shall not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of the date of effectiveness of the

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registration statement referred to in Section 1(a) hereof, except for the transfers enumerated in FINRA Rule 5110(g)(2).

3. Additional Covenants of the Company.

The Company further covenants and agrees with each Underwriter as follows:

(a) Delivery of Registration Statement, Pricing Disclosure Package and Prospectus. The Company shall furnish to you in New York City, without charge, prior to 10:00 a.m. New York City time on the business day next succeeding the date of this Agreement and during the period when a prospectus relating to the Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Securities, as many copies of the Pricing Disclosure Package, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) Representative's Review of Proposed Amendments and Supplements. During the period when a prospectus relating to the Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), the Company (i) will furnish to the Representative for review, a reasonable period of time prior to the proposed time of filing of any proposed amendment or supplement to the Registration Statement, a copy of each such amendment or supplement and (ii) will not amend or supplement the Registration Statement (including any amendment or supplement through incorporation of any report filed under the Exchange Act) without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. Prior to amending or supplementing any preliminary prospectus, the Pricing Disclosure Package or the Prospectus (including any amendment or supplement through incorporation of any report filed under the Exchange Act), the Company shall furnish to the Representative for review, a reasonable amount of time prior to the time of filing or use of the proposed amendment or supplement, a copy of each such proposed amendment or supplement. The Company shall not file or use any such proposed amendment or supplement without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. The Company shall file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) Free Writing Prospectuses. The Company shall furnish to the Representative for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed free writing prospectus or any amendment or supplement thereto prepared by or on behalf of, used by, or referred to by the Company, and the Company shall not file, use or refer to any proposed free writing prospectus or any amendment or supplement thereto without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed. The Company shall furnish to each Underwriter, without charge, as many copies of any free writing prospectus prepared by or on behalf of, used by or referred to by the Company as such Underwriter may reasonably request. If at any time when a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Securities (but in any event if at any time through and including the Closing Date) there occurred or occurs an event or development as a result of which any free writing prospectus prepared by or on behalf of, used by, or referred

to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or 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 the light of the circumstances prevailing at such time, not misleading, the Company shall promptly amend or supplement such free writing prospectus to eliminate or correct such conflict so that the statements in such free writing prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, as the case may be; *provided, however*, that prior to amending or supplementing any such free writing prospectus, the Company shall furnish to the Representative 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 free writing prospectus, and the Company shall not file, use or refer to any such amended or supplemented free writing prospectus without the Representative's prior written consent, not to be unreasonably withheld, conditioned or delayed.

(d) Filing of Underwriter Free Writing Prospectuses. The Company shall not take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(e) Amendments and Supplements to Pricing Disclosure Package. If the Pricing Disclosure Package is being used to solicit offers to buy the Securities at a time when the Prospectus is not yet available to prospective purchasers, and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Pricing Disclosure Package so that the Pricing Disclosure Package does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading, or if any event shall occur or condition exist as a result of which the Pricing Disclosure Package conflicts with the information contained in the Registration Statement, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Pricing Disclosure Package to comply with applicable law, the Company shall (subject to Section 3(b) and Section 3(c) hereof) promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Pricing Disclosure Package so that the statements in the Pricing Disclosure Package as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading or so that the Pricing Disclosure Package, as amended or supplemented, will no longer conflict with the information contained in the Registration Statement, or so that the Pricing Disclosure Package, as amended or supplemented, will comply with applicable law.

(f) Certain Notifications and Required Actions. During the period when a prospectus relating to the Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), the Company shall promptly advise the Representative in writing of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission; (ii) the time and date of any filing of any post-effective amendment to the Registration Statement or any

amendment or supplement to any preliminary prospectus, the Pricing Disclosure Package, any free writing prospectus or the Prospectus; (iii) the time and date that any post-effective amendment to the Registration Statement becomes effective; and (iv) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any amendment or supplement to any preliminary prospectus, the Pricing Disclosure Package or the Prospectus or of any order preventing or suspending the use of any preliminary prospectus, the Pricing Disclosure Package, any free writing prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Stock from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its best efforts to obtain the lifting of such order as soon as practicable. Additionally, the Company agrees that it shall comply with all applicable provisions of Rule 424(b), Rule 433 and Rule 430B under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(g) Amendments and Supplements to the Prospectus and Other Securities Act Matters. If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading, or if in the opinion of the Representative or counsel for the Underwriters it is otherwise necessary to amend or supplement the Prospectus to comply with applicable law, the Company agrees (subject to Section 3(b) and Section 3(c) hereof) to promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law. Neither the Representative's consent to, nor delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Section 3(b) or Section 3(c).

(h) Blue Sky Compliance. The Company shall cooperate with the Representative and counsel for the Underwriters to qualify or register the Securities for sale under (or obtain exemptions from the application of) the state securities or blue sky laws (or other foreign laws as reasonably requested by the Underwriters and agreed to by the Company) of those jurisdictions designated by the Representative, shall comply in all material respects with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Securities. The Company shall not be required to qualify as a foreign corporation or other entity or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation or other entity. The Company will advise the Representative promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Securities for offering, sale or trading in any jurisdiction or any initiation or threat of any

proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its reasonable best efforts to obtain the withdrawal thereof at the earliest possible moment.

(i) Use of Proceeds. The Company shall apply the net proceeds from the sale of the Securities sold by it in the manner described under the caption “Use of Proceeds” in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(j) Transfer Agent. The Company shall engage and maintain, at its expense, a registrar and transfer agent for the Common Stock.

(k) Earnings Statement. The Company will make generally available (which may be satisfied by filing with EDGAR) to its security holders and to the Representative as soon as practicable an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company commencing after the date of this Agreement that will satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(l) Continued Compliance with Securities Laws. The Company will comply with the Securities Act and the Exchange Act so as to permit the completion of the distribution of the Securities as contemplated by this Agreement, the Registration Statement, the Pricing Disclosure Package and the Prospectus. Without limiting the generality of the foregoing, the Company will, during the period when a prospectus relating to the Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), file on a timely basis with the Commission and Nasdaq all reports and documents required to be filed under the Exchange Act.

(m) Listing. The Company will use its best efforts to maintain the listing of its shares of Common Stock on Nasdaq.

(n) Company to Provide Copy of the Prospectus in Form That May be Downloaded from the Internet. If requested by the Representative, the Company shall cause to be prepared and delivered, at its expense, within one business day from the effective date of this Agreement, to Wainwright, an “**electronic Prospectus**” to be used by the Underwriters in connection with the offering and sale of the Securities. As used herein, the term “**electronic Prospectus**” means a form of Pricing Disclosure Package, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, satisfactory to Wainwright, that may be transmitted electronically by Wainwright and the other Underwriters to offerees and purchasers of the Securities; (ii) it shall disclose the same information as the paper Pricing Disclosure Package, except to the extent that graphic and image material cannot be disseminated electronically, in which case such graphic and image material shall be replaced in the electronic Prospectus with a fair and accurate narrative description or tabular representation of such material, as appropriate; and (iii) it shall be in or convertible into a paper format or an electronic format, satisfactory to Wainwright, that will allow investors to store and have continuously ready access to the Pricing Disclosure Package at any future time, without charge to investors (other than any fee charged for subscription to the Internet as a whole and for on-line time). The Company hereby confirms that it has included or will include in the Prospectus filed pursuant to EDGAR or otherwise with the Commission and in the Registration Statement at

the time it was declared effective an undertaking that, upon receipt of a request by an investor or his or her representative, the Company shall transmit or cause to be transmitted promptly, without charge, a paper copy of the Pricing Disclosure Package.

(o) Agreement Not to Offer or Sell Common Stock. During the period commencing on and including the date hereof and continuing through and including the 90th day following the date of the Prospectus (such period, as extended as described below, being referred to herein as the “**Lock-up Period**”), the Company will not, without the prior written consent of Wainwright (which consent may be withheld in its sole discretion), directly or indirectly: (i) sell, offer to sell, contract to sell or lend any Common Stock or Related Securities (as defined below); (ii) effect any short sale, or establish or increase any “put equivalent position” (as defined in Rule 16a-1(h) under the Exchange Act) or liquidate or decrease any “call equivalent position” (as defined in Rule 16a-1(b) under the Exchange Act) of any Common Stock or Related Securities; (iii) pledge, hypothecate or grant any security interest in any Common Stock or Related Securities; (iv) in any other way transfer or dispose of any Common Stock or Related Securities; (v) enter into any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of any Common Stock or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise; (vi) announce the offering of any Common Stock or Related Securities; (vii) file any registration statement under the Securities Act under applicable securities laws in respect of any Common Stock or Related Securities (other than as contemplated by this Agreement with respect to the Securities); or (viii) publicly announce the intention to do any of the foregoing; *provided, however*, that the Company may (A) effect the transactions contemplated hereby; (B) issue Shares or options to purchase Shares or restricted stock units or similar equity securities, or issue Shares upon exercise of options, restricted stock units or similar equity securities to employees, officers or directors of the Company for services rendered to the Company, pursuant to any options, share bonus or other share plan or arrangement pursuant to an incentive plan described in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and (C) file a registration statement on Form S-8 in respect of the issuance, vesting, exercise or settlement of equity awards to officers or directors granted or to be granted pursuant to an incentive plan described in the Registration Statement, Pricing Disclosure Package and the Prospectus (the provisions of clauses (A) through (C) are “**Exempt Issuances**”). For purposes of the foregoing, “**Related Securities**” shall mean any options or warrants or other rights to acquire Common Stock or any securities exchangeable or exercisable for or convertible into Common Stock, or to acquire other securities or rights ultimately exchangeable or exercisable for, or convertible into, Common Stock.

(p) Future Reports to the Representative. During the period of five years hereafter, the Company will furnish to the Representative, c/o Wainwright, at 430 Park Avenue, 4th Floor, New York, New York 10022, Attention: Head of Investment Banking, with copies to H.C. Wainwright & Co., LLC, 430 Park Avenue, 4th Floor, New York, New York 10022, Attention: General Counsel: (i) as soon as practicable after the end of each fiscal year, copies of the Annual Report of the Company containing the balance sheet of the Company as of the close of

such fiscal year and statements of income, stockholders' equity and cash flows for the year then ended and the opinion thereon of the Company's independent public or certified public accountants; (ii) as soon as practicable after the filing thereof, copies of each proxy statement, Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other report filed by the Company with the Commission, FINRA or any securities exchange; and (iii) as soon as available, copies of any report or communication of the Company furnished or made available generally to holders of its capital stock; *provided, however*, that the requirements of this Section 3(p) shall be satisfied to the extent that such reports, statement, communications, financial statements or other documents are available on EDGAR.

(q) Investment Limitation. The Company shall not invest or otherwise use the proceeds received by the Company from its sale of the Securities in such a manner as would require the Company or any of its subsidiaries to register as an investment company under the Investment Company Act.

(r) No Stabilization or Manipulation and Compliance with Regulation M. The Company will not take, and will use its reasonable best efforts to ensure that no affiliate of the Company will take, directly or indirectly, without giving effect to activities by the Underwriters, any action designed to or that might cause or result in stabilization or manipulation of the price of the Common Stock or any reference security with respect to the Common Stock, whether to facilitate the sale or resale of the Securities or otherwise, and the Company will, and shall use its reasonable best efforts to cause each of its affiliates to, comply with all applicable provisions of Regulation M.

(s) Enforce Lock-Up Agreements. During the Lock-up Period, the Company will enforce all agreements between the Company and any of its security holders that restrict or prohibit, expressly or in operation, the offer, sale or transfer of Common Stock or Related Securities or any of the other actions restricted or prohibited under the terms of the form of Lock-up Agreement. In addition, the Company will direct the transfer agent to place stop transfer restrictions upon any such securities of the Company that are bound by such "lock-up" agreements for the duration of the periods contemplated in such agreements, including, without limitation, "lock-up" agreements entered into by the Company's officers and directors and certain other stockholders pursuant to Section 1(xx) hereof.

(t) Right of First Refusal. Until April 11, 2020, if the Company or any of its subsidiaries decides to raise funds by means of a public offering (other than an "at-the-market" facility) or a private placement or any other capital-raising financing of equity, equity-linked or debt securities using an underwriter or placement agent, Representative (or any affiliate designated by Representative) shall have the right to act as (i) for a financing of \$10 million or less, sole book-running manager, sole underwriter or sole placement agent for such financing or (ii) for a financing of greater than \$10 million, the Company will be entitled to retain other investment banks to participate in such financing, provided that Representative shall act as lead joint book-running manager, co-lead underwriter or co-lead placement agent for such financing. If Representative or one of its affiliates decides to accept any such engagement, the agreement governing such engagement will contain, among other things, provisions for customary fees for transactions of similar size, including indemnification, which are appropriate to such a transaction.

The Representative, on behalf of the several Underwriters, may, in their sole discretion, waive in writing the performance by the Company of any one or more of the foregoing covenants or extend the time for their performance.

4. Payment of Expenses. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Securities (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Securities, (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Securities to the Underwriters, (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors, (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Pricing Disclosure Package, the Prospectus, each free writing prospectus prepared by or on behalf of, used by, or referred to by the Company, and each Preliminary Prospectus, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, attorneys' fees and expenses incurred by the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Securities for offer and sale under the state securities or blue sky laws, and, if requested by the Representative, preparing and printing a "Blue Sky Survey" or memorandum, and any supplements thereto, advising the Underwriters of such qualifications, registrations and exemptions, (vii) the costs, fees and expenses incurred by the Underwriters in connection with determining their compliance with the rules and regulations of FINRA related to the Underwriters' participation in the offering and distribution of the Securities, including any related filings fees and the legal fees of, and disbursements by, counsel to the Underwriters, (viii) the costs and expenses of the Company relating to investor presentations on any "road show", including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, reasonable travel and lodging expenses of the Representative approved by the Company in advance, employees and officers of the Company and any such consultants, (ix) the fees and expenses associated with listing the Securities on Nasdaq, (x) all other fees, costs and expenses of the nature referred to in Item 13 of Part II of the Registration Statement and (xi) all actual and documented out-of-pocket expenses and all fees of the Underwriter's legal counsel and other out-of-pocket expenses of the Underwriters reasonably incurred in connection with the transactions contemplated hereby; provided, that the amount payable pursuant to the foregoing clauses (vi), (vii), (viii) and (xi) shall not exceed \$75,000. Any such amount payable to the Underwriters may be deducted from the purchase price for the Securities.

5. Covenant of the Underwriters. Each Underwriter severally and not jointly covenants with the Company not to take any action that would result in the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not, but for such actions, be required to be filed by the Company under Rule 433(d).

6. Conditions of the Obligations of the Underwriters. The respective obligations of the several Underwriters hereunder to purchase and pay for the Firm Securities as provided herein on the Closing Date and, with respect to the Option Securities, each Option Closing Date, shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 1 hereof as of the date hereof and as of the Closing Date as though then made and, with respect to the Option Securities, as of each Option Closing Date as though then made, to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:

(a) Comfort Letters. On the Closing Date, the Representative shall have received from KPMG LLP, independent registered public accountants for the Company, a letter dated the date hereof addressed to the Representative, in form and substance satisfactory to the Representative, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Statement of Auditing Standards No. 72 (or any successor bulletin), with respect to the audited and unaudited financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package, and each free writing prospectus, if any.

(b) Compliance with Registration Requirements; No Stop Order; No Objection from FINRA. For a period from and after the date of this Agreement and through and including the Closing Date and, with respect to any Option Securities purchased after the Closing Date, each Option Closing Date:

(i) The Company shall have filed the Prospectus with the Commission (including the information required by Rule 430A under the Securities Act) in the manner and within the time period required by Rule 424(b) under the Securities Act; or the Company shall have filed a post-effective amendment to the Registration Statement containing the information required by such Rule 430A, and such post-effective amendment shall have become effective.

(ii) No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment to the Registration Statement shall be in effect, and no proceedings for such purpose shall have been instituted or threatened by the Commission.

(iii) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(c) No Material Adverse Change or Ratings Agency Change. For the period from and after the date of this Agreement and through and including the Closing Date and, with respect to any Option Securities purchased after the Closing Date, each Option Closing Date, in the judgment of the Representative there shall not have occurred any material adverse change in the authorized capital stock of the Company or any Material Adverse Effect or any development that would cause a Material Adverse Effect.

(d) Opinion of Counsel for the Company. On the Closing Date and each Option Closing Date the Representative shall have received (i) an opinion and negative assurance letter of Cooley LLP, counsel for the Company, dated as of such date in form and substance satisfactory to the Representative, dated as of such date, and (ii) an opinion from Kilpatrick Townsend & Stockton

LLP regarding intellectual property matters, dated as of such date in form and substance satisfactory to the Representative.

(e) Opinion of Counsel for the Underwriters. On the Closing Date and each Option Closing Date the Representative shall have received the opinion of McDermott Will & Emery, LLP, counsel for the Underwriters in connection with the offer and sale of the Securities, in form and substance satisfactory to the Representative, dated as of such date.

(f) Officers' Certificate. On the Closing Date and each Option Closing Date the Representative shall have received a certificate executed by the President and Chief Executive Officer of the Company, dated as of such date, to the effect set forth in Section 6(b)(ii) and further to the effect that:

(i) for the period from and including the date of this Agreement through and including such date, there has not occurred any Material Adverse Effect;

(ii) the representations, warranties and covenants of the Company set forth in Section 1 of this Agreement are true and correct with the same force and effect as though expressly made on and as of such date; and

(iii) the Company has complied with all the agreements hereunder and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such date.

(g) Principal Accounting Officer's Certificate. On the Closing Date and each Option Closing Date, the Representative shall have received a certificate executed by the Principal Accounting Officer of the Company, dated as of such date, in form and substance satisfactory to the Representative, dated as of such date.

(h) Bring-down Comfort Letters. (i) On each Option Closing Date the Representative shall have received from KPMG LLP, independent registered public accountants for the Company, a letter dated such date, in form and substance satisfactory to the Representative, which letter shall: (a) reaffirm the statements made in the letter furnished by them pursuant to Section 6(a), except that the specified date referred to therein for the carrying out of procedures shall be no more than three business days prior to the applicable Option Closing Date, as the case may be; and (b) cover certain financial information contained in the Prospectus.

(i) Lock-Up Agreements. On or prior to the date hereof, the Company shall have furnished to the Representative an agreement in the form of Exhibit A hereto from each of the Company's directors and officers (as defined in Rule 16a-1(f) under the Exchange Act) and the Company's principal stockholder, and each such agreement shall be in full force and effect on each of the First Closing Date and each Option Closing Date.

(j) Rule 462(b) Registration Statement. In the event that a Rule 462(b) Registration Statement is filed in connection with the offering contemplated by this Agreement, such Rule 462(b) Registration Statement shall have been filed with the Commission on the date of this Agreement and shall have become effective automatically upon such filing.

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(k) Nasdaq Listing. The Company shall have submitted a listing of additional shares notification form to Nasdaq with respect to the Shares and Warrant Shares and shall have received no objection thereto from Nasdaq and shall have received a conditional listing approval that is subject only to customary listing conditions.

(l) Pre-Funded Warrants. The Company shall have delivered executed copies of the Pre-Funded Warrants to the public purchasers thereof.

(m) Common Warrants. The Company shall have delivered executed copies of the Common Warrants to the public purchasers thereof.

(n) Option Warrants. The Company shall have delivered executed copies of the Option Warrants to the public purchasers thereof.

(o) Representative Warrants. The Company shall have delivered executed copies of the Representative Warrants to the Representative related to the Closing Date and/or Option Closing Date, as applicable.

(p) Additional Documents. On or before the Closing Date and each Option Closing Date, the Representative and counsel for the Underwriters shall have received such information, documents and opinions as they may reasonably request for the purposes of enabling them to pass upon the issuance and sale of the Securities as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Securities as contemplated herein and in connection with the other transactions contemplated by this Agreement shall be satisfactory in form and substance to the Representative and counsel for the Underwriters.

If any condition specified in this Section 6 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Representative by notice from the Representative to the Company at any time on or prior to the Closing Date and, with respect to the Securities, at any time on or prior to the applicable Option Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination.

7. Reimbursement of Underwriters' Expenses. If this Agreement is terminated for any reason, the Company agrees to reimburse the Representative and the other Underwriters (or such Underwriters as have terminated this Agreement with respect to themselves), severally, upon demand for all out-of-pocket expenses that shall have been reasonably incurred by the Representative and the Underwriters in connection with the proposed purchase and the offering and sale of the Securities, including, but not limited to, fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges; provided that such out-of-pocket expenses shall not exceed \$50,000.

8. Effectiveness of this Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

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9. Indemnification.

(a) Indemnification of the Underwriters. The Company shall indemnify and hold harmless each Underwriter, its affiliates, the directors, officers, employees, counsel and agents of each Underwriter and each person, if any, who controls each Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act from and against any and all losses, claims, liabilities, expenses and damages (including any and all investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party, or otherwise, or any claim asserted), to which they, or any of them, may become subject under the Securities Act, the Exchange Act or other Federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based on (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rules 430A, 430B or 430C, as applicable 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 (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus, any free writing prospectus, the Pricing Disclosure Package or the Prospectus (or any amendment or supplement to any of the foregoing) 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 or (iii) any untrue statement or alleged untrue statement of a material fact contained in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically) 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; *provided, however*, that the Company shall not be liable to the extent that such loss, claim, liability, expense or damage arises from the sale of the Securities in the public offering to any person by an Underwriter and is based on an untrue statement or omission or alleged untrue statement or omission made in reliance on and in conformity with Underwriter Information. This indemnity agreement will be in addition to any liability that the Company might otherwise have.

(b) Indemnification of the Company. Each Underwriter shall indemnify and hold harmless the Company, its affiliates, the directors, officers, employees, counsel and agents, each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the foregoing indemnity from the Company to each Underwriter, but only insofar as losses, claims, liabilities, expenses or damages arise out of or are based on any untrue statement or omission or alleged untrue statement or omission made in reliance on and in conformity with Underwriter Information. This indemnity will be in addition to any liability that each Underwriter might otherwise have. The Company hereby acknowledges that the only information that the Underwriters have furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus, any free writing prospectus, the Pricing Disclosure Package or the Prospectus (or any amendment or supplement to any of the foregoing) are the statements set forth in the fifth, tenth, sixteenth, seventeenth and eighteenth paragraphs under the caption “Underwriting” in the Preliminary Prospectus and Prospectus (the “**Underwriter Information**”).

(c) Notifications and Other Indemnification Procedures. Any party that proposes to assert the right to be indemnified under this Section 9 shall, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 9, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party under the foregoing provisions of this Section 9 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with its own counsel, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel (including local counsel, if necessary) in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (i) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (ii) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (iii) the indemnified party has reasonably concluded that a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party shall not have the right to direct the defense of such action on behalf of the indemnified party) or (iv) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel shall be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges shall be reimbursed by the indemnifying party promptly as they are incurred. An indemnifying party shall not be liable for any settlement of any action or claim effected without its written consent (which consent will not be unreasonably withheld or delayed). No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 9 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding 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. Notwithstanding the foregoing, 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 9(a) 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.

10. Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of Section 9 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or the Underwriters, the Company and the Underwriters shall contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Underwriters, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and the Underwriters may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions which resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to whether the 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 Representatives on behalf of the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 10 were to be determined by pro rata allocation or by any other method of allocation (even if the Underwriters were treated as one entity for such purpose) which does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense or damage, or action in respect thereof, referred to above in this Section 10 shall be deemed to include, for purpose of this Section 10, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 10, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by it, and no person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligation to contribute as provided in this Section 10 are several in proportion to their respective underwriting obligations and not joint. For purposes of this Section 10, any person who controls a party to this Agreement within the meaning of the

Securities Act will have the same rights to contribution as that party, and each officer of the Company who signed the Registration Statement will have the same rights to contribution as the Company, and each director, officer, employee, counsel or agent of any Underwriter will have the same rights to contribution as such Underwriter, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 10, will notify any such party or parties from whom contribution may be sought, but the omission so to notify will not relieve the party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 10. No party will be liable for contribution with respect to any action or claim settled without its written consent (which consent will not be unreasonably withheld).

11. Default of One or More of the Several Underwriters. If, on the Closing Date or any Option Closing Date any one or more of the several Underwriters shall fail or refuse to purchase the Firm Securities or Option Securities, as applicable, that it or they have agreed to purchase hereunder on such date, and the aggregate number of Firm Securities or Option Securities which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Firm Securities or Option Securities, as applicable, to be purchased on such date, the Representative may make arrangements satisfactory to the Company for the purchase of such Firm Securities or Option Securities, as applicable, by other persons, including any of the Underwriters, but if no such arrangements are made by such date, the other Underwriters shall be obligated, severally and not jointly, in the proportions that the number of Firm Securities and Option Securities set forth opposite their respective names on Schedule A bears to the aggregate number of Firm Securities and Option Securities set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as may be specified by the Representative with the consent of the non-defaulting Underwriters, to purchase the Firm Securities and Option Securities which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date. If, on the Closing Date or any Option Closing Date any one or more of the Underwriters shall fail or refuse to purchase Firm Securities or Option Securities and the aggregate number of Firm Securities and Option Securities with respect to which such default occurs exceeds 10% of the aggregate number of Firm Securities or Option Securities to be purchased on such date, and arrangements satisfactory to the Representative and the Company for the purchase of such Firm Securities and Option Securities are not made within 48 hours after such default, this Agreement shall terminate without liability of any party to any other party except that the provisions of Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination. In any such case either the Representative or the Company shall have the right to postpone the Closing Date or the applicable Option Closing Date, as the case may be, but in no event for longer than seven days in order that the required changes, if any, to the Registration Statement and the Prospectus or any other documents or arrangements may be effected.

As used in this Agreement, the term “**Underwriter**” shall be deemed to include any person substituted for a defaulting Underwriter under this Section 11. Any action taken under this Section 11 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

12. Termination of this Agreement. Prior to the purchase of the Firm Securities by the Underwriters on the Closing Date, this Agreement may be terminated by the Representative by notice given to the Company if at any time: (i) trading or quotation in any of the Company's securities shall have been suspended or limited by the Commission, any other securities regulatory authority, or by Nasdaq or trading in securities generally on the NYSE or Nasdaq shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges; (ii) a general banking moratorium shall have been declared by any of U.S. federal or New York or authorities or a major disruption of securities settlements or clearing services in the United States shall have occurred and be continuing; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any substantial change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States' or international political, financial or economic conditions, as in the judgment of the Representative is material and adverse and makes it impracticable to market the Securities in the manner and on the terms described in the Pricing Disclosure Package or the Prospectus or to enforce contracts for the sale of securities; (iv) in the good faith judgment of the Representative there shall have occurred any material adverse change, or any development or event involving a prospective material adverse change, in the condition, financial or otherwise, or in the business, properties, earnings, results of operations or prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business; or (v) the Company shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Representative may interfere materially with the conduct of the business and operations of the Company regardless of whether or not such loss shall have been insured. Any termination pursuant to this Section 12 shall be without liability on the part of (a) the Company to any Underwriter, except that the Company shall be obligated to reimburse the expenses of the Representative and the Underwriters pursuant to Section 4 and Section 7 hereof or (b) any Underwriter to the Company; *provided, however,* that the provisions of Section 9, Section 10, and Section 12 shall at all times be effective and shall survive such termination.

If this Agreement is terminated prior to the purchase of the Firm Securities by the Underwriters on the Closing, and the Company consummates a public or private offering or other financing or capital-raising transaction of any kind ("Tail Financing") by investors whom Representative had contacted on or before the date hereof or introduced to the Company on or before the date hereof, then Representative shall be entitled to receive with respect to each Tail Financing (i) a cash fee, or as to an underwritten public offering a discount, equal to 7.0% of the aggregate gross proceeds raised in the Tail Financing, and (ii) warrants to purchase that number of shares of Common Stock of the Company equal to 7.0% of the aggregate number of shares of Common Stock issued and sold in the public or private offering that constitutes the Tail Financing, issuable to the Representative or its designees, with such warrants having the same terms as the warrants issued to investors in such underwritten public offering, except that the exercise price shall equal to 125% of the public offering price.

13. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (i) the purchase and sale of the Securities pursuant to this Agreement, including the determination of the public offering price of the Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (ii) in connection with the offering contemplated

hereby and the process leading to such transaction, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, or its stockholders, or its creditors, employees or any other party, (iii) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) and no Underwriter has any obligation to the Company with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (iv) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (v) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

14. Representations and Agreements to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of its or their partners, officers, directors or employees or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Securities sold hereunder and any termination of this Agreement.

15. Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered or telecopied and confirmed to the parties hereto as follows:

If to the Representative: H.C. Wainwright & Co., LLC
430 Park Avenue, 4th Floor
New York, NY 10022
Facsimile: (212) 214-0803
Attention: Head of Investment Banking

with a copy to: McDermott Will & Emery LLP
340 Madison Ave
New York, NY 10173
Attention: Gary Emmanuel

If to the Company: Vaxart, Inc.
290 Utah Ave. Suite 200
South San Francisco, California 94080
Attention: Chief Executive Officer

with a copy to: Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
Attention: John T. McKenna
 Josh Seidenfeld

Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally or by verifiable facsimile transmission (with an original to follow) on or before 4:30 p.m., New York City time, on a Business Day or, if such day is not a Business Day, on the next succeeding Business Day, (ii) on the next Business Day after timely delivery to a nationally-recognized overnight courier and (iii) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid). For purposes of this Agreement, “**Business Day**” shall mean any day on which the Exchange and commercial banks in the City of New York are open for business.

16. An electronic communication (“**Electronic Notice**”) shall be deemed written notice for purposes of this Section 16 if sent to the electronic mail address specified by the receiving party under separate cover. Electronic Notice shall be deemed received at the time the party sending Electronic Notice receives verification of receipt by the receiving party. Any party receiving Electronic Notice may request and shall be entitled to receive the notice on paper, in a nonelectronic form (“**Nonelectronic Notice**”) which shall be sent to the requesting party within ten (10) days of receipt of the written request for Nonelectronic Notice.

17. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Company and the Underwriters and their respective successors and the parties referred to in Section 9 hereof. References to any of the parties contained in this Agreement shall be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; provided, however, that the Underwriter may assign its rights and obligations hereunder to an affiliate thereof without obtaining the Company’s consent.

18. Partial Unenforceability. The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

19. Entire Agreement; Amendment; Severability; Waiver. This Agreement (including all schedules and exhibits attached hereto issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof, including, for the avoidance of doubt, that certain engagement letter, dated as of September 11, 2019, as amended, by and between the Company and H.C. Wainwright & Co., LLC. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and the Underwriters. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions

herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement. No implied waiver by a party shall arise in the absence of a waiver in writing signed by such party. No failure or delay in exercising any right, power, or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power, or privilege hereunder.

20. **GOVERNING LAW AND TIME; WAIVER OF JURY TRIAL.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAWS. SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME. EACH PARTY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

21. **CONSENT TO JURISDICTION.** EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS SITTING IN THE CITY OF NEW YORK, BOROUGH OF MANHATTAN, FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH ANY TRANSACTION CONTEMPLATED HEREBY, AND HEREBY IRREVOCABLY WAIVES, AND AGREES NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT, THAT SUCH SUIT, ACTION OR PROCEEDING IS BROUGHT IN AN INCONVENIENT FORUM OR THAT THE VENUE OF SUCH SUIT, ACTION OR PROCEEDING IS IMPROPER. EACH PARTY HEREBY IRREVOCABLY WAIVES PERSONAL SERVICE OF PROCESS AND CONSENTS TO PROCESS BEING SERVED IN ANY SUCH SUIT, ACTION OR PROCEEDING BY MAILING A COPY THEREOF (CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED) TO SUCH PARTY AT THE ADDRESS IN EFFECT FOR NOTICES TO IT UNDER THIS AGREEMENT AND AGREES THAT SUCH SERVICE SHALL CONSTITUTE GOOD AND SUFFICIENT SERVICE OF PROCESS AND NOTICE THEREOF. NOTHING CONTAINED HEREIN SHALL BE DEEMED TO LIMIT IN ANY WAY ANY RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW.

22. **Counterparts.** 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. Delivery of an executed Agreement by one party to the other may be made by facsimile or electronic transmission.

23. **Construction.**

- (a) the section and exhibit headings herein are for convenience only and shall not affect the construction hereof;
- (b) words defined in the singular shall have a comparable meaning when used in the plural, and vice versa;

(c) the words “hereof,” “hereto,” “herein” and “hereunder” and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular provision of this Agreement;

(d) wherever the word “include,” “includes” or “including” is used in this Agreement, it shall be deemed to be followed by the words “without limitation”;

(e) references herein to any gender shall include each other gender;

(f) references herein to any law, statute, ordinance, code, regulation, rule or other requirement of any Governmental Authority shall be deemed to refer to such law, statute, ordinance, code, regulation, rule or other requirement of any Governmental Authority as amended, reenacted, supplemented or superseded in whole or in part and in effect from time to time and also to all rules, policies, notices, instruments and regulations promulgated thereunder;

(g) if the last day for the giving of any notice or the performance of any act required or permitted under this Agreement is a day that is not a Business Day, then the time for the giving of such notice or the performance of such action shall be extended to the next succeeding Business Day; and

(h) “**knowledge**” means, as it pertains to the Company, the actual knowledge of the officers and directors of the Company, together with the knowledge which they would have had if they had conducted a reasonable inquiry of the relevant persons into the relevant subject matter.

(i) “**Governmental Authority**” means (i) any federal, state, local, municipal, national or international government or governmental authority, regulatory or administrative agency, governmental commission, department, board, bureau, agency or instrumentality, court, tribunal, arbitrator or arbitral body (public or private); (ii) any self-regulatory organization (including any stock exchange or quotation system); or (iii) any political subdivision of any of the foregoing.

24. General Provisions.

Each of the parties hereto acknowledges that it is a sophisticated business person who was adequately represented by counsel during negotiations regarding the provisions hereof, including, without limitation, the indemnification provisions of Section 9 and the contribution provisions of Section 10, and is fully informed regarding said provisions. Each of the parties hereto further acknowledges that the provisions of Section 9 and Section 10 hereof fairly allocate the risks in light of the ability of the parties to investigate the Company, its affairs and its business in order to assure that adequate disclosure has been made in the Registration Statement, any preliminary prospectus, the Pricing Disclosure Package, each free writing prospectus and the Prospectus (and any amendments and supplements to the foregoing), as contemplated by the Securities Act and the Exchange Act.

If the foregoing correctly sets forth the understanding between the Company and the Underwriters, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and the Underwriters.

Very truly yours,

VAXART, INC.

By: _____

Name: Wouter W. Latour, M.D.

Title: President and Chief Executive Officer

ACCEPTED as of the date first-above written:

H.C. WAINWRIGHT & CO., LLC

On behalf of itself and the several Underwriters named in Schedule A hereto.

By: _____

Name:

Title:

SIGNATURE PAGE

UNDERWRITING AGREEMENT

Underwriters	Firm Shares	Pre-Funded Warrants	Common Warrants	Option Shares	Option Warrants	Aggregate Purchase Price
H.C. Wainwright & Co., LLC	[·]	[·]	[·]	[·]	[·]	\$ [·]
Brookline Capital Markets, a division of Arcadia Securities, LLC	[·]	[·]	[·]	[·]	[·]	\$ [·]
Total						\$ [·]

Free Writing Prospectuses Included in the Pricing Disclosure Package

None.

Pricing Information

Number of Firm Shares: [·]

Number of Pre-Funded Warrants: [·]

Number of Common Warrants: [·]

Number of Option Shares: [·]

Number of Option Warrants: [·]

Public Offering Price per Share: \$[·]

Public Offering Price per Pre-Funded Warrant: \$[·]

Public Offering Price per Common Warrant:\$[·]

Public Offering Price per Option Warrant:\$[·]

Pre-Funded Warrant Exercise Price: \$0.10

Common Warrant Exercise Price:\$[·]

Subsidiaries

Vaxart Biosciences, Inc.
Biota Holdings Pty, Ltd.
Biota Scientific Management Pty, Ltd.
Biota Europe Limited
Anaconda Pharma, S.A.S.

Exhibit A

Form of Lock-up Agreement

Lock-Up Agreement

September 12, 2019

H.C. WAINWRIGHT & CO. LLC

As Representative of the several Underwriters

c/o H.C. Wainwright & Co. LLC

430 Park Avenue

New York, New York 10022

Re: Vaxart, Inc.

Ladies and Gentlemen:

This Lock-Up Agreement (this "Agreement") is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") between Vaxart, Inc., a Delaware corporation (the "Company"), and H.C. Wainwright & Co. LLC ("Wainwright"), as representative of a group of underwriters (collectively, the "Underwriters"), to be named therein, and the other parties thereto (if any), relating to the proposed public offering of shares of the common stock, par value \$0.10 per share (the "Common Stock") and warrants to purchase Common Stock, of the Company (collectively, the "Securities" and the "Offering").

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 Securities will confer upon the undersigned in its capacity as a securityholder and/or an officer, director or employee of the Company, and for 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 the date hereof through and including the date that is the 90th day after the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of Wainwright, directly or indirectly, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or announce the intention to otherwise dispose of, any shares of Common Stock whether now owned or hereafter acquired by the undersigned (including, without limitation, Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations promulgated under the Securities Act of 1933, as the same may be amended or supplemented from time to time (such shares, the "Beneficially Owned Shares")) or securities convertible into or exercisable or exchangeable for Common Stock, (ii) enter into any swap, hedge or similar agreement or arrangement that transfers in whole or in part, the economic risk of ownership of the Beneficially Owned Shares or securities convertible into or exercisable or exchangeable for Common 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 (iii) engage in any short selling of the Common Stock or securities convertible into or exercisable or exchangeable for Common Stock.

The restrictions set forth in the immediately preceding paragraph shall not apply to:

- (1) shares of Common Stock acquired in open market transactions after the closing of the Offering,
 - (2) if the undersigned is a natural person, any transfers made by the undersigned (a) as a bona fide gift 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, (b) by will or intestate succession upon the death of the undersigned or (c) as a bona fide gift to a charity or educational institution,
 - (3) if the undersigned is a corporation, partnership, limited liability company or other business entity, any transfers to any shareholder, partner or member of, or owner of a similar equity interest in, the undersigned, as the case may be, if, in any such case, such transfer is not for value, and
 - (4) if the undersigned is a corporation, partnership, limited liability company or other business entity, any transfer made by the undersigned (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the undersigned's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the undersigned's assets, in any such case not undertaken for the purpose of
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avoiding the restrictions imposed by this Agreement or (b) to another corporation, partnership, limited liability company or other business entity so long as the transferee is an affiliate (as defined below) of the undersigned and such transfer is not for value;

provided, however, that in the case of any transfer described in clause (2), (3) or (4) above, it shall be a condition to the transfer that (A) the transferee executes and delivers to Wainwright, 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 Wainwright, and (B) if the undersigned is required to file a report under Section 16(a) of the Securities Exchange Act of 1934, as amended, reporting a reduction in beneficial ownership of shares of Common Stock or Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or Beneficially Owned Shares during the Lock-Up Period (as the same may be extended as described above), the undersigned shall include a statement in such report to the effect that, in the case of any transfer pursuant to clause (2) above, such transfer is being made as a gift or by will or intestate succession or, in the case of any transfer pursuant to clause (3) above, such transfer is being made to a shareholder, partner or member of, or owner of a similar equity interest in, the undersigned and is not a transfer for value or, in the case of any transfer pursuant to clause (4) above, such transfer is being made either (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the undersigned’s capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the undersigned’s assets or (b) to another corporation, partnership, limited liability company or other business entity that is an affiliate of the undersigned and such transfer is not for value. 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; and “affiliate” shall have the meaning set forth in Rule 405 under the Securities Act of 1933, as amended.

The undersigned further agrees that (i) it will not, during the Lock-Up 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, of any shares of Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares, and (ii) the Company may, with respect to any Common Stock or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Stock or other Beneficially Owned Shares 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 the Lock-Up Period (as the same may be extended as described above). In addition, the undersigned hereby waives, from the date hereof until the expiration of the 90-day period following the date of the Underwriting Agreement and any extension of such period pursuant to the terms hereof, any and all rights, if any, to request or demand registration pursuant to the Securities Act of 1933, as amended, of any shares of Common Stock that are registered in the name of the undersigned or that are Beneficially Owned Shares.

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. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

If (i) the Company notifies Wainwright in writing that it does not intend to proceed with the Offering, (ii) the Underwriting Agreement is not executed before November 15, 2019 or (iii) the Underwriting Agreement (other than the provisions thereof that survive termination) terminates or is terminated prior to payment for and delivery of the Securities to be sold thereunder, then in each case, this Agreement shall automatically, and without any action on the part of any other party, terminate and be of no further force and effect, and the undersigned shall automatically be released from the obligations under this Agreement.

[Remainder of page intentionally left blank.]

The undersigned acknowledges and agrees that whether or not any public offering of the Securities actually occurs depends on a number of factors, including market conditions.

Very truly yours,

(Name of Stockholder - Please Print)

(Signature)

(Name of Signatory if Stockholder is an entity - Please Print)

(Title of Signatory if Stockholder is an entity - Please Print)

Address:

Exhibit B**Directors and Executive Officers and Principal Stockholder Signing Lock-up Agreement**

1. Anne Valent
 2. Geoffrey Cox
 3. John Richard
 4. Michael Finney
 5. Richard Markham
 6. Sean Tucker
 7. Wouter Latour
 8. Margaret Echerd
 9. Entities affiliated with Care Capital
-

REPRESENTATIVE COMMON STOCK PURCHASE WARRANT

VAXART, INC.

Warrant Shares:

Issue Date:

THIS WARRANT TO PURCHASE COMMON STOCK (the “Warrant”) certifies that, for value received, (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on _____, 2024⁽¹⁾ (the “Termination Date”), but not thereafter, to subscribe for and purchase from Vaxart, Inc., a Delaware corporation (the “Company”), up to _____ shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant is issued pursuant to that certain Underwriting Agreement, by and between the Company and H.C. Wainwright & Co., LLC as representative of the several underwriters listed in Schedule A thereto, dated as of _____, 2019 (the “Underwriting Agreement”).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.10 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or any subsidiaries of the Company which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

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

(1) Insert date that is five years from the effective date of the Registration Statement.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means American Stock Transfer & Trust Company, LLC, the current transfer agent of the Company, with a mailing address of 6201 15th Avenue, Brooklyn, New York 11219, and any successor transfer agent of the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrants” means this Warrant.

Section 2. Exercise.

(a) Exercise of Warrants. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d) (i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price to the Company for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding

number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise” and without limiting the liquidated damages provision in Section 2(d)(i) and the buy-in provision in Section 2(d)(iv), in no event will the Company be required to net cash settle a Warrant exercise.

(b) Exercise Price. The exercise price per Warrant Share under this Warrant shall be \$ _____, subject to adjustment hereunder (the “Exercise Price”).

(c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

(d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system

(“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) this Warrant is being exercised via cashless exercise and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise but did not receive (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver, but failed to deliver, to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to

pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to

be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two (2) Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

(b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial

Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash) or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock other than as set forth in Section 3(a), by way of return of capital or otherwise (including, without limitation, any distribution of stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and/or any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate

Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Fundamental Transaction, the same type or form of consideration (and in the same proportion), at the Black Scholes Value (as defined below) of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an Exercise price which applies the Exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

(e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution,

redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, liquidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, liquidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. Nothing in this Warrant shall be construed as to require the Company to deliver a notice to the Holder which constitutes or contains material, non-public information regarding the Company or any subsidiaries. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

(a) Transferability. Pursuant to FINRA Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

- i. by operation of law or by reason of reorganization of the Company;
- ii. to any FINRA member firm participating in the offering and the officers and partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;
- iii. if the aggregate amount of securities of the Company held by the underwriter and related persons do not exceed 1% of the securities being offered;
- iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or
- v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction and subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder are transferable, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within two (2) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the Issue Date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

(d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of this Warrant or Warrant Shares under the Securities Act. As a condition of transfer, any such transferee shall agree in writing to be bound by the terms of this Agreement and shall have the rights and obligations of a Holder under this Agreement.

(e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

(a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

(b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

(d) Authorized Shares.

The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the

Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or

agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

(f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

(g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at Vaxart, Inc., 290 Utah Ave., Suite 200, South San Francisco, California 94080, Attention: Principal Accounting Officer, facsimile number: (650) 871-8580, email address: mecherd@vaxart.com, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

(i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

(l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such

prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

VAXART, INC.

By:

Name: Wouter W. Latour, M.D.

Title: President and Chief Executive Officer

NOTICE OF EXERCISE

TO: **VAXART, INC.**

- (1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.
- (2) Payment shall take the form of (check applicable box):
 - in lawful money of the United States; or
 - if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).
- (3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

- (4) The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____,

Holder's Signature: _____

Holder's Address: _____

*** = Certain information contained in this document, marked by brackets, has been omitted because it is both not material and would be competitively harmful if publicly disclosed.

MANUFACTURING SERVICES AGREEMENT

This Manufacturing Services Agreement (the “**Agreement**”) is made as of July 17, 2019, (the “**Effective Date**”) between Lonza Houston, Inc., a Delaware corporation having its principal place of business at 14905 Kirby Dr, Houston, TX 77047 (“**LONZA**”), and **Vaxart, Inc., a Delaware Corporation**, having an office at 290 Utah Ave., Suite 200 South San Francisco, CA 94080 (“**CLIENT**”) (each of LONZA and CLIENT, a “**Party**” and, collectively, the “**Parties**”).

RECITALS

- A. LONZA operates a multi-client production facility located at 14905 Kirby Drive, Houston, TX 77047 (the “**Facility**”).
- B. CLIENT desires to have LONZA produce a product intended for therapeutic use in humans, and LONZA desires to produce such product.
- C. CLIENT desires to have LONZA conduct work according to one or more Statement(s) of Work, as further defined below.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises and covenants hereinafter set forth, LONZA and CLIENT, intending to be legally bound, hereby agree as follows:

AGREEMENT

1. DEFINITIONS

When used in this Agreement, capitalized terms will have the meanings as defined below and throughout the Agreement. Unless the context indicates otherwise, the singular will include the plural and the plural will include the singular.

- 1.1. “**Acceptance Period**” shall have the meaning set forth in Section 5.2.
 - 1.2. “**Affiliate**” means, with respect to either Party, any other corporation or business entity that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Party. For purposes of this definition, the term “control” and, with correlative meanings, the terms “controlled by” and “under common control with” means direct or indirect ownership of more than fifty percent (50%) of the securities or other ownership interests representing the equity voting stock or general partnership or membership interest of such entity or the power to direct or cause the direction of the management or policies of such entity, whether through the ownership of voting securities, by contract, or otherwise.
-

- 1.3. **“Background Intellectual Property”** means any Intellectual Property either (i) owned or controlled by a Party prior to the Effective Date or (ii) developed or acquired by a Party independently from performance under this Agreement during the term of the Agreement.
- 1.4. **“Batch”** means a specific quantity of Product that is intended to have uniform character and quality, within specified limits, and is produced according to a single manufacturing order during the same cycle of manufacture.
- 1.5. **“Batch Record”** means the production record pertaining to a Batch.
- 1.6. **“cGMP”** or **“GMP”** means the applicable regulatory requirements, as amended from time to time, for current good manufacturing practices, including without limitation those promulgated by (i) the FDA under the United States Federal Food, Drug and Cosmetic Act, 21 C.F.R. § 210 et seq., or (b) the European Medicines Agency or under the European Union guide to good manufacturing practice for medicinal products.
- 1.7. **“cGMP Batch”** means any Batch which is required under the Statement of Work to be manufactured in accordance with cGMP.
- 1.8. **“Change Order”** has the meaning set forth in Section 2.2.
- 1.9. **“CLIENT Development Materials”** has the meaning set forth in Section 2.3.
- 1.10. **“CLIENT Inventions”** means any know-how or inventions, whether or not patentable, conceived, developed or reduced to practice by or on behalf of CLIENT: (a) on or before the Effective Date; or (b) independently from performance under this Agreement during the term of the Agreement.
- 1.11. **“CLIENT Materials”** means the CLIENT Development Materials and the CLIENT Production Materials.
- 1.12. **“CLIENT Personnel”** has the meaning set forth in Section 4.9.1.
- 1.13. **“CLIENT Production Materials”** has the meaning set forth in Section 4.1.
- 1.14. **“Commencement Date”** means the date set forth in the Statement of Work for the commencement of Services, including the production of the Product.
- 1.15. **“Confidential Information”** has the meaning set forth in Section 9.1.
- 1.16. **“Disapproval Notice”** shall have the meaning set forth in Section 5.2.
- 1.17. **“Engineering Batch”** means a Batch that is intended to demonstrate the transfer of the Process to the Facility.
- 1.18. **“FDA”** means the U.S. Food and Drug Administration, and any successor agency thereof.

[***] = Certain information contained in this document, marked by brackets, has been omitted because it is both not material and would be competitively harmful if publicly disclosed.

- 1.19. **“Intellectual Property”** means all worldwide patents, copyrights, trade secrets, know-how and all other intellectual property rights, including all applications and registrations with respect thereto, but excluding all trademarks, trade names, service marks, logos and other corporate identifiers.
- 1.20. **“LONZA Inventions”** means any know-how, media, assays, methods or other inventions, whether or not patentable, conceived, developed or reduced to practice by LONZA: (a) on or before the Effective Date; or (b) independently from performance under this Agreement during the term of the Agreement.
- 1.21. **“LONZA Operating Documents”** means [***].
- 1.22. **“LONZA Parties”** has the meaning set forth in Section 15.2.
- 1.23. **“LONZA Personnel”** means LONZA’s employees and agents
- 1.24. **“Materials”** means all raw materials and supplies to be used in the production of a Product.
- 1.25. **“Process”** means the manufacturing process for a Product.
- 1.26. **“Product”** has the meaning set forth in a Statement of Work.
- 1.27. **“Product Warranties”** means those warranties as specifically stated in Section 5.1.
- 1.28. **“Project Documentation”** means the compilation of documentation generated by LONZA in preparation of and during the performance of a given SOW, including, without limitation, executed Batch Records, component records, test records and test record forms, certificates of analysis, study protocols, study summary reports, deviation reports, laboratory investigations, environment excursions, formulation records, and other related documents.
- 1.29. **“Regulatory Approval”** means the approval by a regulatory authority to market and sell the Product in a regulatory jurisdiction.
- 1.30. **“Services”** means the activities to be performed by Lonza under a Statement of Work.
- 1.31. **“SOP”** means a standard operating procedure.
- 1.32. **“Specifications”** means the Product specifications set forth in the certificate of analysis or as modified by the Parties, in writing, in connection with the production of a particular cGMP Batch of Product hereunder.

[***] = Certain information contained in this document, marked by brackets, has been omitted because it is both not material and would be competitively harmful if publicly disclosed.

- 1.33. **“Statement of Work” or “SOW”** means a plan to develop a Process or Product that is attached hereto as Appendix A or later becomes attached through an amendment by the Parties. It is contemplated that each separate project shall have its own Statement of Work. As each Statement of Work is agreed to by the Parties, each shall state that it is to be incorporated and made a part of this Agreement and shall be consecutively numbered as A-1, A-2, A-3, etc.
- 1.34. **“Technology Transfer”** means the transfer of documentation, specifications, and production process by CLIENT to LONZA for the development of the Project Documentation for the manufacture of the Product specifically for the CLIENT.
- 1.35. **“Third Party”** means any party other than LONZA, CLIENT or their respective Affiliates.

2. STATEMENTS OF WORK - PROCESS AND PRODUCT DEVELOPMENT; PROCESS OR PRODUCT MANUFACTURE

2.1 Statement of Work. Prior to performing any Process or Product development, Technology Transfer, or Process or Product manufacture, the Parties will collaborate to develop a Statement of Work, describing the activities to be performed by the Parties, or, if applicable, to be subcontracted by LONZA to Third Parties. No Statement of Work shall become effective unless and until mutually agreed and executed by the Parties and there shall be no minimum or maximum limit to the number of Statements of Work that the Parties may execute. In the event of a conflict between the terms and conditions of this Agreement and any Statement of Work, the terms and conditions of this Agreement shall control.

2.2 Modification of Statement of Work. Should CLIENT want to change a Statement of Work or to include additional services to be provided by LONZA, CLIENT may propose to LONZA an amendment to the Statement of Work with the desired changes or additional services (**“Change Order”**). If LONZA determines that it has the resources and capabilities to accommodate such Change Order, LONZA will prepare a modified version of the Statement of Work reflecting such Change Order (including, without limitation, any changes to the estimated timing, estimated charges or scope of a project) and will submit such modified version of the Statement of Work to CLIENT for review and comment. The modified Statement of Work shall be binding on the Parties only if it refers to this Agreement, states that it is to be made a part thereof, and is signed by both Parties. Thereafter such modified version of the Statement of Work will be deemed to have replaced the prior version of the Statement of Work. Notwithstanding the foregoing, if a modified version of the Statement of Work is not agreed to by both Parties, the existing Statement of Work shall remain in effect.

2.3 CLIENT Deliverables. Within the time period specified in a Statement of Work, CLIENT will provide LONZA with (a) the materials listed in the Statement of Work for which CLIENT is responsible for delivering to LONZA, and any handling instructions, protocols, SOPs and other documentation necessary to maintain the properties of such materials for the performance of the Statement of Work, and (b) any protocols, SOPs and

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other information and documentation in possession or control of CLIENT and necessary for the performance of the Statement of Work, and for the preparation of the Project Documentation in conformance with cGMP, including, without limitation, process information, SOPs, development data and reports, quality control assays, raw material specifications (including vendor, grade and sampling/testing requirements), product and sample packing and shipping instructions, and product specific cleaning and decontamination information, (collectively, the “**CLIENT Development Materials**”). If CLIENT does not provide the CLIENT Development Materials within the time period specified in a Statement of Work, then CLIENT shall be responsible for any reasonable, documented, non-cancellable costs incurred by LONZA arising from such failure.

2.4 Performance by LONZA. Subject to the provision by CLIENT of the CLIENT Development Materials pursuant to Section 2.3, LONZA will use commercially reasonable efforts to perform, directly or, subject to the terms of the Statement of Work or approval by CLIENT (such approval not to be unreasonably withheld), through a Third Party contractor, the work described in a Statement of Work in a professional and workman-like manner in accordance with the terms of this Agreement, the terms of the applicable Statement of Work and all applicable laws and regulations. LONZA will use commercially reasonable efforts promptly to notify CLIENT of any material delays that arise during the performance of the Statement of Work. LONZA shall be responsible for any Third Party contractor’s performance of any activities delegated or subcontracted hereunder and compliance with the applicable terms of this Agreement.

2.5 Engineering Batches. LONZA shall manufacture Engineering Batches in accordance with the Statement of Work. CLIENT shall have the right to make whatever further use of the non-cGMP Engineering Batches as it shall determine, provided that CLIENT pays for such Batches, such use is not for human use and does not violate any applicable laws. LONZA makes no warranty that Engineering Batches will meet cGMP or the Specifications. Regardless of whether any Engineering Batch meets cGMP or the Specifications, CLIENT shall pay to Lonza the price for such Engineering Batch plus the cost of any materials and any materials handling fee associated with such Engineering Batches that are specified in the applicable Statement of Work.

2.6 cGMP Batches. LONZA will, in accordance with the terms of this Agreement and Quality Agreement, manufacture at the Facility and release to CLIENT, cGMP Batches that comply with the Process, cGMP and the Specifications, together with a certificate of analysis; provided, however, that cGMP manufacture shall not commence until successful completion of one (1) Engineering Run, unless agreed otherwise in the applicable SOW. Prior to commencement of cGMP manufacturing, LONZA shall review the process assumptions. In the event that there is a material difference in the process assumptions as compared with the process results demonstrated during the manufacture of Engineering Batches, the Parties shall meet to discuss in good faith a revision to the Batch price to reflect such difference.

2.7 Affiliates. An Affiliate of LONZA may execute a Statement of Work with CLIENT pursuant to this Agreement and submit invoices to CLIENT under such Statement of Work. In such circumstances, all references in this Agreement to LONZA shall be deemed to be to the applicable Affiliate of LONZA with respect to (i) that particular Statement of Work or (ii)

[***] = Certain information contained in this document, marked by brackets, has been omitted because it is both not material and would be competitively harmful if publicly disclosed.

the relevant portions of a Statement of Work under which the Affiliate will be performing specified Services. The Affiliate shall be entitled to enforce this Agreement with respect to such Statement of Work, or as applicable the relevant portions of such Statement of Work, in its own name as an intended third party beneficiary and the Affiliate shall be solely liable to CLIENT for any obligations and liabilities undertaken pursuant to such Statement of Work and subject to the terms of this Agreement.

3. TECHNOLOGY TRANSFER

3.1 Based on the information provided by CLIENT and including process definition or changes developed by LONZA pursuant to any applicable Statement of Work, LONZA will use commercially reasonable efforts to prepare the Project Documentation for the Process in accordance with the Statement of Work. CLIENT will inform LONZA of any specific requirements CLIENT may have relating to the Project Documentation, including, without limitation, any information or procedures CLIENT wishes to have incorporated therein. If LONZA intends to include in the Project Documentation the use of any assay, medium, or other technology that is not commercially available, LONZA will inform CLIENT of such intention and the Parties will meet to discuss and attempt to agree in good faith on the terms of use of such non-commercially available materials or technology in the Process. The applicable Project Documentation, as set forth in the SOW, shall be completed and delivered by LONZA at completion of a Batch.

3.2 CLIENT will cooperate with LONZA to assist LONZA to develop the Project Documentation and Process, including, without limitation, by providing LONZA with additional information and procedures as may be required to create the Project Documentation, Process, and/or any of the following: (i) manufacturing process information, SOPs, development reports, (ii) quality control assays, (iii) raw material specifications (including vendor, grade and sampling/testing requirements), (iv) Product and sample packing and shipping instructions, (v) Product specific cleaning and decontamination information.

3.3 LONZA will deliver a draft version of the applicable portions of the Project Documentation to CLIENT for its review and approval in accordance with the schedule set forth in the Statement of Work. CLIENT will notify LONZA in writing of any objections it has to the draft Master Production Record, and upon such notification, representatives of LONZA and CLIENT will meet promptly to resolve such objections. Upon CLIENT's written acceptance of the draft Project Documentation, or in the event that CLIENT does not submit a written notice setting forth CLIENT's objections to the draft Project Documentation within [***] days following receipt of such draft by CLIENT, such draft will be deemed approved by CLIENT.

3.4 The Process, Project Documentation, Specifications, and any improvements or modifications thereto developed during the term of this Agreement, but excluding any LONZA Operating Documents, LONZA Inventions, Lonza New IP, or LONZA Confidential Information included in any of the foregoing, will be deemed CLIENT Confidential Information and subject to the provisions set forth in Article 9. CLIENT shall be permitted to use the Process and/or the Project Documentation to manufacture and sell Product; [***].

[***] = Certain information contained in this document, marked by brackets, has been omitted because it is both not material and would be competitively harmful if publicly disclosed.

3.5 All CLIENT Materials shall remain the sole property of CLIENT and are the Confidential Information of CLIENT. LONZA shall use the CLIENT Materials solely to perform its obligations under this Agreement and shall not transfer the CLIENT Materials to any Third Party without CLIENT's prior written consent. The CLIENT Materials supplied under this Agreement must be used a) with prudence and appropriate caution because not all of their characteristics may be known and b)) in accordance with CLIENT's information and instructions, which shall include a statement of content/formulation/ingredients, storage conditions, expiration information and safety and hazard information. Except as expressly set forth in this Agreement, THE CLIENT MATERIALS ARE PROVIDED "AS IS" AND WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, OTHER THAN AS TO THE ACCURACY AND CORRECTNESS OF THE INFORMATION AND INSTRUCTIONS PROVIDED PURSUANT TO THIS SECTION, AND CLIENT EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE.

4. MANUFACTURE OF PRODUCT; ORDER PROCESS; DELIVERIES

4.1 CLIENT Deliverables. Within any time period agreed to in any applicable Statement of Work, CLIENT will provide LONZA with the materials listed in the Statement of Work required to be supplied by CLIENT for the production of the Product, and any handling instructions, protocols, SOPs and other documentation necessary to maintain the properties of such materials for the performance of the Statement of Work (collectively, the "**CLIENT Production Materials**").

4.2 Commencement Date. The Statement of Work will include a Commencement Date agreed upon by the Parties.

4.3 Manufacture by LONZA. LONZA will use commercially reasonable efforts to manufacture, package, ship, handle quality assurance and quality control for the Product, all as set forth in the Statement of Work, and to deliver to CLIENT the quantities of Product requested by CLIENT in the Statement of Work, all in accordance with the terms set forth in Section 4.5 below. Notwithstanding the foregoing, [***] revise the production schedule with respect to a Statement of Work provided that such schedule does not advance or delay the Commencement Date of any Batch by more than [***] days.

4.4 Cancellation of a Statement of Work. Each Statement of Work shall provide the termination and/or cancellation fees for such Statement of Work (the "**Cancellation Fee**").

4.5 Payment of Cancellation Fee and Costs. The reasonable, documented and non-cancellable costs associated with any cancelled Batch, plus any applicable Cancellation Fee, shall be payable by CLIENT within [***] days following CLIENT's receipt of an invoice for such costs and any such Cancellation Fee; provided that LONZA will use commercially reasonable efforts to minimize such costs.

4.6 Packaging and Shipping. LONZA will package and label the Product for shipment in accordance with the Project Documentation and LONZA's standard practices

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in effect at the time of performance by LONZA. LONZA will ship the Product [***] to [***] designated by CLIENT to LONZA in writing not less than [***] days prior to the applicable delivery date unless otherwise agreed to in a Statement of Work. CLIENT will provide to LONZA its account number with the selected carrier and will pay for all shipping costs in connection with each shipment of Product. Each shipment will be accompanied by the documentation listed in the Statement of Work. Risk and title in the Product will pass upon [***], unless agreed otherwise in the SOW. LONZA will use commercially best efforts to deliver each shipment of Product to CLIENT on the requested delivery date for such shipment. LONZA will promptly notify CLIENT if LONZA reasonably believes that it will be unable to meet a delivery date. CLIENT shall be required to take physical possession of a Batch of Product within [***] days after acceptance of such Batch in accordance with Section 5.2 (the "Delivery Period"), unless CLIENT requests in writing, and LONZA consents in writing, to store the material on CLIENT's behalf and at CLIENT's expense.

4.7 [***]. [***] that occur during production of any product, except for [***] that result from [***] and [***]. Unless [***] or [***], [***] a breach of warranty claim by CLIENT. If LONZA fails to deliver materials in accordance with the terms of this Agreement or a Statement of Work, or if materials produced pursuant to the Statement of Work fail to meet any technical specification required by the Statement of Work, and such failure [***], LONZA will re-perform the specific project at issue at the earliest practicable time, [***].

4.8 Records. LONZA will maintain accurate records for the production of the Product, as required by applicable laws and regulations. LONZA will retain possession of the Project Documentation, all Batch Records and LONZA Operating Documents, and LONZA will make copies thereof available to CLIENT promptly upon CLIENT's request, at CLIENT's expense. LONZA Operating Documents will remain LONZA Confidential Information to the extent the same do not contain Confidential Information of CLIENT. CLIENT will have the right to use and reference any of the foregoing in connection with a filing for Regulatory Approval of the Product or as otherwise authorized by the Agreement.

4.9 CLIENT Access.

4.9.1 CLIENT's employees and agents (including its Third Party contractors, collectively, "**CLIENT Personnel**") may participate in the production of the Product only in such capacities as may be approved in writing in advance by LONZA. CLIENT Personnel working at the Facility are required to comply with LONZA's Operating Documents and any other applicable LONZA facility and/or safety policies. For the avoidance of doubt, CLIENT Personnel may not physically participate in the production or manufacture of any Product that may be used in or on humans. Notwithstanding anything to the contrary, a reasonable number of CLIENT Personnel shall have the right to be present in the Facility during cGMP activities, subject to the other provisions of this section, for quality or technical reference purposes.

4.9.2 CLIENT Personnel working at the Facility will be and remain employees of CLIENT, and CLIENT will be solely responsible for the payment of

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compensation for such CLIENT Personnel (including applicable Federal, state and local withholding, FICA and other payroll taxes, workers' compensation insurance, health insurance, and other similar statutory and fringe benefits). CLIENT covenants and agrees to maintain workers' compensation benefits and employers' liability insurance as required by applicable Federal and state laws with respect to all CLIENT Personnel working at the Facility.

4.9.3 CLIENT will pay for the actual cost of repairing or replacing to its previous status (to the extent that LONZA determines, in its reasonable judgment, that repairs cannot be adequately effected) any property of LONZA damaged or destroyed by CLIENT Personnel, provided CLIENT shall not be liable for repair or replacement costs resulting from ordinary wear and tear.

4.9.4 CLIENT Personnel visiting or having access to the Facility will abide by LONZA standard policies, operating procedures and the security procedures established by LONZA. CLIENT will be liable for any breaches of security by CLIENT Personnel. In addition, CLIENT will reimburse LONZA for the cost of any lost security cards issued to CLIENT Personnel, at the rate of [***] per security card. All CLIENT Personnel will agree to abide by LONZA policies and SOPs established by LONZA, and will sign an appropriate confidentiality agreement.

4.9.5 CLIENT will indemnify and hold harmless LONZA from and against any and all losses, damages, liabilities, costs and expenses (including reasonable attorneys' fees and expenses) arising out of any injuries suffered by CLIENT Personnel while at the Facility, except to the extent caused by the gross negligence or willful misconduct on the part of any LONZA Party.

4.10 Disclaimers. CLIENT acknowledges and agrees that LONZA Parties will not engage in any Product refinement or development of the Product, other than as expressly set forth in this Agreement and the Statement of Work. CLIENT acknowledges and agrees that LONZA Parties have not participated in the invention or testing of any Product, and have not evaluated its safety or suitability for use in humans or otherwise.

5. **PRODUCT WARRANTIES; ACCEPTANCE AND REJECTION OF PRODUCTS**

5.1 Product Warranties. LONZA warrants that any Product manufactured by LONZA pursuant to this Agreement, at the time of delivery pursuant to Section 4.6: (a) conforms to the Specifications, except with respect to Engineering Batches; (b) was manufactured in accordance with the Project Documentation; (c) where applicable, was manufactured in accordance with cGMP, except with respect to Engineering Batches; (d) was manufactured in accordance with all applicable laws; and (e) title to all Products provided to CLIENT under this Agreement will pass to CLIENT free and clear of any security interest, lien or other encumbrance.

5.2 Approval of Completed Product.

5.2.1 When a cGMP Batch has been completed, LONZA will notify CLIENT and supply CLIENT with the required Project Documentation set forth in

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the SOW. Within [***] calendar days after CLIENT's receipt of such Project Documentation regarding such cGMP Batch (the "**Acceptance Period**"), Client shall determine by review of such Project Documentation whether or not the given cGMP Batch conforms to the product warranties set forth in Section 5.1 above ("**Product Warranties**"). During the Acceptance Period, LONZA shall respond promptly to any reasonable inquiry by CLIENT with respect to such Project Documentation. If CLIENT asserts that the cGMP Batch does not comply with the Product Warranties set forth in Section 5.1 above, CLIENT will deliver to LONZA, in accordance with the notice provisions set forth in Section 17.4 hereof, written notice of disapproval (the "**Disapproval Notice**") of such cGMP Batch, stating in reasonable detail the basis for such assertion of non-compliance with the Product Warranties. If a valid Disapproval Notice is received by LONZA during the Acceptance Period, then LONZA and CLIENT will provide one another with all related paperwork and records (including, but not limited to, quality control tests) relating to both the production of the cGMP Batch and the Disapproval Notice. If a valid Disapproval Notice is not received during the Acceptance Period, the cGMP Batch will be deemed accepted and ready for shipment to CLIENT, or storage for CLIENT, as applicable.

5.2.2 If Product is to be shipped to CLIENT, then upon acceptance, the Product shall be delivered to CLIENT, and CLIENT shall accept delivery thereof, within [***] after such acceptance. Title and risk of loss to such Product shall pass [***]. If the Product is to be stored by LONZA for CLIENT, LONZA shall do so in accordance with agreed upon terms of a SOW which covers all relevant details of a Product storage engagement.

5.3 **Dispute Resolution.** LONZA and CLIENT will attempt to resolve any dispute regarding the conformity of a cGMP Batch with the Product Warranties. If such dispute cannot be settled within [***] days of the submission by each Party of such related paperwork and records to the other Party, and if the cGMP Batch is alleged not to conform with the Product Warranties set forth in Section 5.1(a), then CLIENT will submit a sample of the cGMP Batch of the disputed Product to an independent expert or independent testing laboratory of recognized repute either of which is selected by CLIENT and approved by LONZA (such approval not to be unreasonably withheld) for analysis, under quality assurance approved procedures, of the conformity of such cGMP Batch with the Specifications. The costs associated with such analysis by such independent expert or independent testing laboratory will be paid by the Party whose assessment of the conformity of the cGMP Batch with the Specifications was mistaken.

5.4 Remedies for Non-Conforming, Damaged, or Destroyed Product.

5.4.1 In the event that the Parties agree, or an independent testing laboratory determines, pursuant to Section 5.3, that a cGMP Batch materially fails to conform to the Product Warranties, or Product and/or Materials are destroyed or damaged by LONZA Personnel, [***], then, at CLIENT's request, LONZA will, as soon as it is commercially practicable to do so, for each failed cGMP batch, produce [***] for CLIENT sufficient quantities of Product to replace the non-conforming, damaged or destroyed portion of such cGMP Batch (the "**Production Rerun(s)**"), in accordance with the provisions of this Agreement and at no additional cost to CLIENT; provided, however, CLIENT shall have first paid for the original cGMP Batch. If a replacement Product cannot

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be provided to CLIENT, then LONZA shall refund the cost of the original cGMP Batch, provided, however, CLIENT shall have first paid for the original cGMP Batch.

5.4.2 In the event that the Parties agree, or an independent testing laboratory determines, pursuant to Section 5.3, that a cGMP Batch materially fails to conform to the Product Warranties, or Product and/or Materials are destroyed or damaged by LONZA Personnel, [***], then [***] with respect to such cGMP Batch, Product or Material and LONZA will, at CLIENT's request, [***]. Notwithstanding anything to the contrary set forth in Section 5.4, if during the manufacture of Product pursuant to this Agreement, Product or Materials are destroyed or damaged by LONZA Personnel [***], then LONZA will [***] as the result of such destruction or damage to the extent caused by LONZA Personnel [***].

5.4.3 Except for [***], [***] acknowledges and agrees that [***] with respect to (i) the failure of Product to conform with any of the Product Warranties and (ii) damaged or destroyed Materials and/or Product, [***] this Section 5.4, and in furtherance thereof, [***] regarding the foregoing [***].

6. STORAGE OF MATERIALS

6.1 Pre-Production. LONZA will store at the expense of CLIENT any CLIENT Materials, equipment or other property delivered pursuant to the Statement of Work to the Facility by CLIENT more than [***] days prior to the Commencement Date. The storage rates will be set forth in the Statement of Work and may be amended from time to time by LONZA, subject to [***] days' prior written notice by LONZA to CLIENT. No storage fees will be charged during the period starting [***] days prior to the Commencement Date and ending upon completion of the manufacturing of the applicable Product.

6.2 Post-Production. LONZA will store at the Facility free of charge any in—process materials, CLIENT Materials, equipment and other CLIENT property (other than Product manufactured hereunder) that remains at the Facility on the date of completion of the manufacturing of the applicable Product (collectively “**Remaining CLIENT Property**”), for up to [***] calendar days. If CLIENT has not provided any instructions as to the shipment or other disposition of Remaining CLIENT Property prior to the expiration of such [***] period, LONZA may, in its sole discretion, destroy such Remaining CLIENT Property, or continue to store such Remaining CLIENT Property at the Facility or elsewhere, provided that LONZA shall be required to prove it has successfully contacted CLIENT at least [***] days prior to the destruction of any Remaining CLIENT Property. In the event that LONZA continues to store such Remaining CLIENT Property, CLIENT will pay to LONZA a storage charge at LONZA's then-standard monthly storage rates for the period beginning on the [***] after the completion of the manufacturing of the applicable Product through the date that the storage terminates.

6.3 Product. Notwithstanding the foregoing, if CLIENT fails to take delivery of a Product within the applicable Delivery Period as required by Section 4.5, CLIENT will pay to LONZA a storage charge at one and a half times LONZA's then-standard

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monthly storage rate, which shall begin accruing on the first day following the expiration of the applicable Delivery Period.

7. REGULATORY MATTERS

7.1 Permits and Approvals. During the term, LONZA will [***] maintain any licenses, permits and approvals necessary for the manufacture of the Product in the Facility. LONZA will promptly notify CLIENT if LONZA receives notice that any such license, permit, or approval is or may be revoked or suspended. [***].

7.2 Inspections/Quality Audit by CLIENT. [***] during the term of a Statement of Work and upon not less than [***] days' prior written notice, LONZA will permit CLIENT to inspect and audit the parts of the Facility where the manufacture of the Product is carried out in order to assess LONZA's compliance with cGMP, and to discuss any related issues with LONZA's management personnel. CLIENT Personnel engaged in such inspection will abide by the terms and conditions set forth in Sections 4.9.4 and 10.

7.3 Inspections by Regulatory Agencies. Except as otherwise set forth in the Quality Agreement, LONZA will allow representatives of any regulatory agency to inspect the relevant parts of the Facility where the manufacture of the Product is carried out and to inspect the Project Documentation and Batch Records to verify compliance with cGMP and other practices or regulations and will promptly notify CLIENT of the scheduling of any such inspection relating to the manufacture of Product. LONZA will promptly send to CLIENT a copy of any reports, citations, or warning letters received by LONZA in connection with an inspection of a regulatory agency to the extent such documents relate to or affect the manufacture of the Product.

8. FINANCIAL TERMS

8.1 Payments. CLIENT will make payments to LONZA in the amounts and on the dates set forth in an applicable Statement of Work or if not set forth in any such Statement Work, within [***] days after receipt of an invoice from LONZA. In the event that CLIENT has not either paid, or given written notice to LONZA that it disputes all or a portion of an invoice, together with any information and documents reasonably necessary for LONZA to evaluate such dispute (hereinafter a "Disputed Invoice") within [***] days of the applicable due date (as established by Section 8.2), CLIENT's failure shall be considered a material breach under Section 13.2, subject to the cure provisions set forth therein. Further, in addition to all other remedies available to LONZA, in the event that CLIENT has not paid an invoice other than a Disputed Invoice within [***] days of the applicable due date (as established by Section 8.2), LONZA may elect to suspend the provision of all or a portion of the services under this Agreement, provided that CLIENT

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shall remain liable for all fees owed for Services performed in accordance with the Statement of Work during any such suspension.

8.2 Invoices and Pricing. LONZA will charge for the services in accordance with the price schedule in each individual Statement of Work. LONZA will invoice CLIENT according to the schedule set forth in a Statement of Work. LONZA will deliver invoices electronically by email, which shall be considered to be an original invoice. Invoices shall be e-mailed to [***] and/or to such other e-mail address(es) as CLIENT may stipulate from time to time. LONZA will not deliver a paper invoice. Payment of invoices is due as provided in the Statement of Work. Unless otherwise provided in the Statement of Work, all pricing excludes taxes and costs relating to shipping, validation and regulatory filings. The price shall be invoiced to CLIENT in the local currency of the location of the Facility in which the Services were performed.

8.3 Taxes. CLIENT agrees that it is responsible for and will pay any sales, use or other taxes (the “**Taxes**”) resulting from LONZA’s production of Product under this Agreement (except for income or personal property taxes payable by LONZA). To the extent not paid by CLIENT, CLIENT will indemnify and hold harmless the LONZA Parties from and against any and all penalties, fees, expenses and costs whatsoever in connection with the failure by CLIENT to pay the Taxes. LONZA will not collect any sales and use taxes from CLIENT in connection with the production of any Product hereunder if CLIENT provides to LONZA the appropriate valid exemption certificates.

8.4 Interest. Any fee, charge or other payment due to LONZA by CLIENT under this Agreement other than a Disputed Invoice that is not paid within [***] days after it is due will accrue interest on a daily basis at a rate of [***] (or the maximum legal interest rate allowed by applicable law, if less) from and after such date.

8.5 Method of Payment. Except as otherwise set forth in Section 8.2, all payments to LONZA hereunder by CLIENT will be in United States currency and will be by check, wire transfer, money order, or other method of payment approved by LONZA. Bank information for wire transfers is as follows:

Mailing address for wire transfer payments:

[***]

Please email remittance advice to [***].

9. CONFIDENTIAL INFORMATION

9.1 Definition. “**Confidential Information**” means all technical, scientific and other know-how and information, trade secrets, knowledge, technology, means, methods, processes, practices, formulas, instructions, skills, techniques, procedures, specifications, data, results and other material, pre-clinical and clinical trial results, manufacturing procedures, test procedures and purification and isolation techniques, and any tangible embodiments of any of the foregoing, and any scientific, manufacturing, marketing and business plans, any financial and personnel matters relating to a Party or its present or

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future products, sales, suppliers, customers, employees, investors or business, that has been disclosed by or on behalf of such Party or such Party's Affiliates to the other Party or the other Party's Affiliates either in connection with the discussions and negotiations pertaining to this Agreement or in the course of performing this Agreement. Without limiting the foregoing, the terms of this Agreement will be deemed "Confidential Information" and will be subject to the terms and conditions set forth in this Article 9.

9.2 Exclusions. Notwithstanding the foregoing Section 9.1, any information disclosed by a Party to the other Party will not be deemed "Confidential Information" to the extent that such information:

- (a) at the time of disclosure is in the public domain;
- (b) becomes part of the public domain, by publication or otherwise, through no fault of the Party receiving such information;
- (c) at the time of disclosure is already in possession of the Party who received such information, as established by contemporaneous written records;
- (d) is lawfully provided to a Party, without restriction as to confidentiality or use, by a Third Party lawfully entitled to possession of such Confidential Information; or
- (e) is independently developed by a Party without use of or reference to the other Party's Confidential Information, as established by contemporaneous written records.

9.3 Disclosure and Use Restriction. Except as expressly provided herein, the Parties agree that for the term of the Agreement and the five-year period following any termination of the Agreement, each Party and its Affiliates will keep completely confidential and will not publish or otherwise disclose any Confidential Information of the other Party, its Affiliates or sublicensees, except in accordance with Section 9.4. Neither Party will use Confidential Information of the other Party except as necessary to perform its obligations or to exercise its rights under this Agreement.

9.4 Permitted Disclosures. Each receiving Party agrees to (i) institute and maintain security procedures to identify and account for all copies of Confidential Information of the disclosing Party and (ii) limit disclosure of the disclosing Party's Confidential Information to its [***] and each of its and their respective officers, directors, employees, agents, consultants and independent contractors having a need to know such Confidential Information for purposes of this Agreement; provided that such [***] and each of its and their respective officers, directors, employees, agents, consultants and independent contractors are informed of the terms of this Agreement and are subject to obligations of confidentiality, non-disclosure and non-use similar to those set forth herein.

9.5 Government-Required Disclosure. If a duly constituted government authority, court or regulatory agency orders that a Party hereto disclose information subject to an obligation of confidentiality under this Agreement, such Party shall comply with the

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order, but shall notify the other Party as soon as possible, so as to provide the said Party an opportunity to apply to a court of record for relief from the order.

9.6 Publicity. Neither Party will refer to, display or use the other's name, trademarks or trade names confusingly similar thereto, alone or in conjunction with any other words or names, in any manner or connection whatsoever, including any publication, article, or any form of advertising or publicity, except with the prior written consent of the other Party or as otherwise set forth in Section 10.7.

9.7 Publications. The confidentiality provisions of this Section 10 are applicable to all publications, abstracts, and papers authored by either Party, or its employees, consultants or contractors relating to services performed by LONZA hereunder or to data created pursuant to or related to the Statement of Work. Manuscripts of all such publications shall be submitted to the other Party at least [***] days prior to submission in final form to any publisher. Each Party shall promptly inform the other Party of any alterations or deletions necessary to protect its rights under Section 10 and shall be obligated to make such changes prior to submitting any manuscripts in final form. For general business development purposes, LONZA and/or the CLIENT may announce on its website or in press releases the general nature of work performed for CLIENT under any given Statement of Work upon receiving permission from the other Party, such permission not being unreasonably withheld or delayed.

10. INTELLECTUAL PROPERTY

10.1 Ownership.

10.1.1 Except as expressly otherwise provided herein, neither Party will, as a result of this Agreement, acquire any right, title, or interest in any Background Intellectual Property of the other Party. Except as expressly otherwise provided herein, ownership of any Intellectual Property that is developed, conceived, invented, first reduced to practice or made in connection with the performance under this Agreement shall follow inventorship all as determined under applicable laws.

10.1.2 CLIENT shall own all right, title, and interest in and to any and all Intellectual Property that LONZA, its Affiliates or its or their Third Party contractors or agents develops, conceives, invents, first reduces to practice or makes, solely or jointly with CLIENT or others, that [***] (collectively, "CLIENT New IP"). For the removal of doubt, LONZA New IP as defined below shall not include CLIENT New IP. Subject to the terms and conditions set forth herein (including the payment required under this Agreement), LONZA hereby assigns to CLIENT all of LONZA's right, title and interest in and to any CLIENT New IP. LONZA shall promptly disclose to CLIENT in writing all CLIENT New IP. LONZA shall execute, and shall require its personnel as well as its Affiliates, or other Third Party contractors or agents and their personnel involved in the performance of this Agreement to execute, any documents reasonably required to confirm CLIENT's ownership of CLIENT New IP, and any documents required to apply for, maintain and enforce any patent or other right in the CLIENT New IP.

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10.1.3 Subject to the license granted in Section 11.2.2, LONZA shall own all right, title and interest in "LONZA New IP", which as used in this Agreement means Intellectual Property that LONZA or its Affiliates, or other Third Party contractors or agents of LONZA develops, conceives, invents, or first reduces to practice or makes in the course of performance under this Agreement that [***]. For avoidance of doubt, LONZA New IP shall include any material, processes or other items that embody, or that are claimed or covered by, any of the foregoing Intellectual Property but shall exclude any material, processes or other items that embody, or that are claimed or covered by, any Intellectual Property owned or controlled by CLIENT.

10.2 License Grants.

10.2.1 During the term of this Agreement, CLIENT hereby grants to LONZA a fully paid, non-exclusive license under any and all CLIENT Intellectual Property that is necessary for LONZA to perform its obligations under this Agreement for the sole and limited purpose of LONZA's performance of its obligations under this Agreement, including, without limitation, the development of the Process and the manufacture of Product for CLIENT.

10.2.2 Subject to the terms and conditions set forth herein (including the payment required under this Agreement), LONZA hereby grants to CLIENT a non-exclusive, world-wide, fully paid-up, irrevocable, transferable license, including the right to grant sublicenses in multiple-tiers of sublicense, under any necessary LONZA Intellectual Property (including, but not limited to, LONZA New IP), to use, sell and import the Product manufactured under this Agreement.

10.3 Further Assurances. Each Party agrees to take all necessary and proper acts, and will cause its employees, Affiliates, contractors, and consultants to take such necessary and proper acts, to effectuate the ownership provisions set forth in this Article 10.

10.4 Prosecution of Patents.

10.4.1 LONZA will have the sole right and discretion to file, prosecute and maintain patent applications and patents claiming LONZA New IP at LONZA's expense. CLIENT will cooperate with LONZA to file, prosecute and maintain patent applications and patents claiming LONZA New IP, and will have the right to review and provide comments to LONZA relating to such patent applications and patents.

10.4.2 CLIENT will have the sole right and discretion to file, prosecute and maintain patent applications and patents claiming CLIENT New IP at CLIENT's expense. LONZA will cooperate with CLIENT to file, prosecute and maintain patent applications and patents claiming CLIENT New IP, and will have the right to review and provide comments to CLIENT relating to such patent applications and patents.

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11. REPRESENTATIONS AND WARRANTIES

11.1 General. Each Party represents and warrants that: (i) it has full power to enter into this Agreement and to grant to the other Party the rights granted to such other Party under this Agreement and (ii) it has obtained all necessary corporate approvals to enter into and execute the Agreement.

11.2 By CLIENT. CLIENT hereby represents and warrants to LONZA that, to the best of its knowledge, (i) it has the requisite intellectual property and legal rights related to the CLIENT Materials and the Product to authorize the performance of LONZA's obligations under this Agreement, and (ii) the use of the CLIENT Materials to perform the Services as contemplated in this Agreement will not give rise to a potential cause of action by a Third Party against LONZA for infringement or another violation of intellectual property rights. Such representation and warranty will not apply to any production equipment supplied by LONZA.

11.3 By LONZA. LONZA hereby represents and warrants to CLIENT that, to the best of its knowledge, (i) it or its Affiliates have the requisite intellectual property rights in its equipment and Facility to be able to perform its obligations under this Agreement, and (ii) that LONZA's or its Affiliates' use of its equipment and Facility as contemplated in this Agreement will not give rise to a potential cause of action by a Third Party against CLIENT for infringement or another violation of intellectual property rights.

11.4 Services. LONZA warrants that: (a) it will perform all Services in a professional manner, with due care and in accordance with industry standards; (b) it will perform and document all Services in accordance with the applicable Statement of Work and all applicable laws; and (c) all individuals and entities that perform any Services under this Agreement are under a written obligation to assign all right, title and interest in any intellectual property arising from such Services to LONZA and to protect CLIENT Confidential Information in accordance with Article 9 of this Agreement.

11.5 No Debarment. LONZA represents and warrants to CLIENT that neither LONZA, its Affiliates nor any of its or their employees or Third Party contractors have been "debarred" by the FDA, or subject to a similar sanction from another regulatory authority, nor have to LONZA's best knowledge debarment proceedings against LONZA, its Affiliates or any of its or their employees or Third Party contractors been commenced. LONZA will promptly notify CLIENT in writing if any such proceedings have commenced or if LONZA, its Affiliates or any of its or their employees or Third Party contractors are debarred by the FDA or any other regulatory authority.

12. DISCLAIMER; LIMITATION OF LIABILITY

12.1 DISCLAIMER. EXCEPT FOR THE EXPRESS REPRESENTATIONS AND WARRANTIES SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY ADDITIONAL REPRESENTATIONS AND GRANTS ANY ADDITIONAL WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, WITH RESPECT TO THE PRODUCTS, MATERIALS, AND SERVICES PROVIDED UNDER THIS AGREEMENT, AND EACH PARTY SPECIFICALLY DISCLAIMS

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ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE WITH RESPECT TO SUCH PRODUCTS, MATERIALS, OR SERVICES.

12.2 Disclaimer of Consequential Damages. SUBJECT TO SECTION 12.4, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER OR ANY OF ITS AFFILIATES FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS, BUSINESS OR GOODWILL) SUFFERED OR INCURRED BY SUCH OTHER PARTY OR ITS AFFILIATES IN CONNECTION WITH THIS AGREEMENT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

12.3 Limitation of Liability. SUBJECT TO SECTION 12.4, BOTH PARTIES HEREBY AGREE THAT TO THE FULLEST EXTENT PERMITTED BY LAW, LONZA'S LIABILITY TO CLIENT, FOR ANY AND ALL INJURIES, CLAIMS, LOSSES, EXPENSES, OR DAMAGES, WHATSOEVER, ARISING OUT OF OR IN ANY WAY RELATED TO THIS AGREEMENT FROM ANY CAUSE OR CAUSES, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE, ERRORS, OMISSIONS OR STRICT LIABILITY, SHALL NOT EXCEED [***].

12.4 NOTHING IN THIS AGREEMENT SHALL OPERATE SO AS TO EXCLUDE OR IN ANY WAY LIMIT ANY LIABILITY FOR EITHER PARTY'S (I) BREACH OF CONFIDENTIALITY OBLIGATIONS PURSANT TO ARTICLE 9, (II) FRAUD, (C) GROSS NEGLIGENCE OR WILLFUL MISCONDUCT [***].

13. TERM AND TERMINATION

13.1 Term. The term of this Agreement will commence on the Effective Date and will continue until the fifth anniversary of the Effective Date unless terminated prior to that time or extended by the Parties.

13.2 Termination for Material Breach. Either Party may terminate this Agreement, by written notice to the other Party, for any material breach of this Agreement by the other Party, if such breach is not cured within [***] days after the breaching Party receives written notice of such breach from the non-breaching Party; provided, however, that if such breach is not capable of being cured within such thirty-day period and the breaching Party has commenced and diligently continued actions to cure such breach within such thirty-day period, except in the case of a payment default, the cure period shall be extended to [***] days, so long as the breaching Party is making diligent efforts to do so. Such termination shall be effective upon expiration of such cure period.

13.3 Termination Without Cause. After [***], either Party may terminate this Agreement without cause by providing written notice of termination no less than [***] in

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advance of the date of termination, provided that any Statement of Work in effect as of the effective date of such termination will remain in effect in accordance with its terms and the terms of this Agreement unless terminated in accordance with Section 13.4.

13.4 Termination of a Statement of Work. CLIENT may terminate any Statement of Work at any time without cause, without affecting any other Statement of Work or the remainder of this Agreement. For the avoidance of doubt, in the event of termination of a Statement of Work by CLIENT under this Section 13.4, CLIENT shall, in addition to any Cancellation Fees owed pursuant to such terminated Statement of Work, pay LONZA for any reasonable, documented, non-cancellable costs associated with such terminated Statement of Work, provided that LONZA will use commercially reasonable efforts to minimize such costs after a notice of termination has been provided to LONZA.

13.5 Termination by Insolvency. Either Party may terminate this Agreement upon notice to the other Party, upon (a) the dissolution, termination of existence, liquidation or business failure of the other Party; (b) the appointment of a custodian or receiver for the other Party who has not been terminated or dismissed within [***] days of such appointment; (c) the institution by the other Party of any proceeding under national, federal or state bankruptcy, reorganization, receivership or other similar laws affecting the rights of creditors generally or the making by such Party of a composition or any assignment for the benefit of creditors under any national, federal or state bankruptcy, reorganization, receivership or other similar law affecting the rights of creditors generally, which proceeding is not dismissed within [***] days of filing. All rights and licenses granted pursuant to this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11 of the United States Code, licenses of rights of “intellectual property” as defined therein.

13.6 Effects of Termination.

13.6.1 Accrued Rights. Termination of this Agreement for any reason will be without prejudice to any rights that will have accrued to the benefit of a Party prior to such termination. Such termination will not relieve a Party of obligations that are expressly indicated to survive the termination of this Agreement. Without limitation of the foregoing, in the event of termination hereunder, LONZA shall be compensated for (i) Services rendered in accordance with the Agreement and SOW up to the date of termination, including in respect of any Product in-process; (ii) all reasonable, documented and non-cancellable costs incurred or commitments through the date of termination, including costs and fees for Materials used or purchased for use in connection with the Services [***]; and (iii) any applicable Cancellation Fees. In the case of termination by LONZA for CLIENT’s material breach, all scheduled Services and Batches shall be deemed cancelled by CLIENT, and Cancellation Fees shall be calculated as of the date of written notice of termination.

13.6.2 Disposition of Remaining CLIENT Property and Confidential Information. Upon termination or expiration of this Agreement, LONZA will store any Remaining CLIENT Property as set forth in Section 6.2 and, at CLIENT’s

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option, return or destroy any CLIENT Confidential Information in the possession or control of LONZA. Likewise, CLIENT will, at LONZA's option, return or destroy any LONZA Confidential Information in the possession or control of CLIENT. Notwithstanding the foregoing provisions: (i) LONZA may retain and preserve, at its sole cost and expense, samples and standards of each Product following termination or expiration of this Agreement solely for use in determining LONZA's rights and obligations hereunder; and (ii) each Party may retain a single copy of the other Party's Confidential Information for documentation purposes only and which shall remain subject to the obligations of nonuse and confidentiality set forth in this Agreement.

13.6.3 Survival. Sections 1, 3.4, 3.5, 4.4, 4.5, 4.7, 4.8, 4.9.5, 4.10, 7.2, 9, 10, 11, 12, 13.6, 14, 15 and 16 of this Agreement, together with any appendices referenced therein, will survive any expiration or termination of this Agreement.

14. INDEMNIFICATION

14.1 Indemnification of Client. LONZA will indemnify CLIENT, its Affiliates, and their respective directors, officers, employees and agents, and defend and hold each of them harmless, from and against any and all losses, damages, liabilities, costs and expenses (including reasonable attorneys' fees and expenses) in connection with any and all liability suits, investigations, claims or demands (collectively, "**Losses**") to the extent such Losses arise out of or result from any claim, lawsuit or other action or threat by a Third Party arising out of: [***], except for those Losses for which CLIENT has an obligation to indemnify the LONZA Parties pursuant to Section 14.2, as to which Losses each Party will indemnify the other to the extent of their respective liability for the Losses.

14.2 Indemnification of LONZA. CLIENT will indemnify LONZA and its Affiliates, and their respective directors, officers, employees and agents (the "**LONZA Parties**"), and defend and hold each of them harmless, from and against any and all Losses to the extent such Losses arise out of or result from any claim, lawsuit or other action or threat by a Third Party arising out of: [***], except for those Losses for which LONZA has an obligation to indemnify CLIENT pursuant to Section 14.1, as to which Losses each Party will indemnify the other to the extent of their respective liability for the Losses.

14.3 Indemnification Procedure.

14.3.1 An "**Indemnitor**" means the indemnifying Party. An "**Indemnitee**" means the indemnified Party, its Affiliates, and their respective directors, officers, employees and agents.

14.3.2 An Indemnitee which intends to claim indemnification under Section 15.1 or Section 15.2 hereof shall promptly notify the Indemnitor in writing of any claim, lawsuit or other action in respect of which the Indemnitee, its Affiliates, or any of their respective directors, officers, employees and agents intend to claim such indemnification. The Indemnitee shall permit, and shall cause its Affiliates and their respective directors, officers, employees and agents to permit, the Indemnitor, at its discretion, to settle any such claim, lawsuit or other action and agrees to the complete

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control of such defense or settlement by the Indemnitor; provided, however, that in order for the Indemnitor to exercise such rights, such settlement shall not adversely affect the Indemnitee's rights under this Agreement or impose any obligations on the Indemnitee in addition to those set forth herein. No such claim, lawsuit or other action shall be settled without the prior written consent of the Indemnitor and the Indemnitor shall not be responsible for any legal fees or other costs incurred other than as provided herein. The Indemnitee, its Affiliates and their respective directors, officers, employees and agents shall cooperate fully with the Indemnitor and its legal representatives in the investigation and defense of any claim, lawsuit or other action covered by this indemnification, all at the reasonable expense of the Indemnitor. The Indemnitee shall have the right, but not the obligation, to be represented by counsel of its own selection and expense.

14.4 Insurance. Each Party will maintain at all times during the term of this Agreement comprehensive general liability insurance including, but not limited to, products liability insurance coverage with a per occurrence limit of at least [***] and an aggregate limit of at least [***], and will provide a Certificate of Insurance to the other Party upon the other Party's reasonable request. Each Party will maintain such insurance with an insurance company having a minimum AM Best rating of A. Each Party will provide the other Party with at least 30 days' written notice prior to termination of such insurance.

15. ADDITIONAL COVENANTS

15.1 Non-Solicitation. During the term of this Agreement and for [***] thereafter, each of the Parties agrees not to seek to induce or solicit any employee of the other Party or its Affiliates to discontinue his or her employment with the other Party or its Affiliate in order to become an employee or an independent contractor of the soliciting Party or its Affiliate; provided, however, that neither Party shall be in violation of this Section 16.1 as a result of making a general solicitation for employees or independent contractors. For the avoidance of doubt, the publication of an advertisement shall not constitute solicitation or inducement.

16. MISCELLANEOUS

16.1 Independent Contractors. Each of the Parties is an independent contractor and nothing herein contained shall be deemed to constitute the relationship of partners, joint venturers, nor of principal and agent between the Parties. Neither Party shall at any time enter into, incur, or hold itself out to Third Parties as having authority to enter into or incur, on behalf of the other Party, any commitment, expense, or liability whatsoever.

16.2 Force Majeure. Neither Party shall be in breach of this Agreement if there is any failure of performance under this Agreement (except for payment of any amounts due under this Agreement) occasioned by any reason beyond the control and without the fault or negligence of the Party affected thereby, including, without limitation, an act of God, fire, flood, act of government or state, war, civil commotion, insurrection, acts of terrorism, embargo, sabotage, a viral, bacterial or mycoplasmal contamination which

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causes a shutdown of the Facility, prevention from or hindrance in obtaining energy or other utilities, a shortage of raw materials or other necessary components or any other reason beyond the control and without the fault or negligence of the Party affected thereby (a “**Force Majeure Event**”). Such excuse shall continue as long as the Force Majeure Event continues, provided that if a Force Majeure Event persists for a period of [***] or more, either Party may terminate this Agreement by delivering written notice to the other Party. Upon cessation of such Force Majeure Event, the affected Party shall promptly resume performance under this Agreement as soon as it is commercially reasonable for the Party to do so. Each Party agrees to give the other Party prompt written notice of the occurrence of any Force Majeure Event, the nature thereof, and the extent to which the affected Party will be unable to fully perform its obligations under this Agreement. Each Party further agrees to use commercially reasonable efforts to correct the Force Majeure Event as quickly as practicable (provided that in no event shall a Party be required to settle any labor dispute) and to give the other Party prompt written notice when it is again fully able to perform such obligations.

16.3 Condemnation. If the Facility is condemned or taken as a result of the exercise of the power of eminent domain or will be conveyed to a governmental agency having power of eminent domain under the threat of the exercise of such power (any of the foregoing, a “**Condemnation**”), then this Agreement will terminate as of the date on which title to the Facility vests in the authority so exercising or threatening to exercise such power and CLIENT will not have any right to the Condemnation proceeds.

16.4 Notices. Any notice required or permitted to be given under this Agreement by any Party shall be in writing and shall be (a) delivered personally, (b) sent by registered mail, return receipt requested, postage prepaid, (c) sent by a nationally-recognized courier service guaranteeing next-day or second day delivery, charges prepaid, or (d) delivered by facsimile (with documented evidence of transmission), to the addresses or facsimile numbers of the other Party set forth below, or at such other addresses as may from time to time be furnished by similar notice by any Party. The effective date of any notice under this Agreement shall be the date of receipt by the receiving Party.

If to LONZA:
Lonza Sales AG
Attn: Business Head
101 International Drive, Portsmouth, NH 03801

With a copy to:
Assistant General Counsel
Lonza America, Inc.
412 Mount Kemble Avenue
Morristown, NJ 07960
Fax: +1 201 378 5200

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If to Client:

Vaxart, Inc.

Attn: Wouter Latour, CEO

290 Utah Ave., Suite 200

South San Francisco, CA 94080

Fax: +1 650 871-8580

Either Party may change its address for notice by giving notice thereof in the manner set forth in this Section 16.4.

16.5 Entire Agreement; Amendments. This Agreement, including the Appendices attached hereto and referenced herein, constitutes the full understanding of the Parties and a complete and exclusive statement of the terms of their agreement with respect to the specific subject matter hereof and supersedes all prior agreements and understandings, oral and written, among the Parties with respect to the subject matter hereof. No terms, conditions, understandings or agreements purporting to amend, modify or vary the terms of this Agreement (including any Appendix hereto) shall be binding unless hereafter made in a written instrument referencing this Agreement and signed by each of the Parties.

16.6 Governing Law. The construction, validity and performance of the Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, without giving effect to its conflicts of laws provisions.

16.7 Counterparts. This Agreement and any amendment hereto may be executed in any number of counterparts, each of which shall for all purposes be deemed an original and all of which shall constitute the same instrument. This Agreement shall be effective upon full execution by facsimile or original, and a facsimile signature shall be deemed to be and shall be as effective as an original signature.

16.8 Severability. If any part of this Agreement shall be found to be invalid or unenforceable under applicable law in any jurisdiction, such part shall be ineffective only to the extent of such invalidity or unenforceability in such jurisdiction, without in any way affecting the remaining parts of this Agreement in that jurisdiction or the validity or enforceability of the Agreement as a whole in any other jurisdiction. In addition, the part that is ineffective shall be reformed in a mutually agreeable manner so as to as nearly approximate the intent of the Parties as possible.

16.9 Titles and Subtitles. All headings, titles and subtitles used in this Agreement (including any Appendix hereto) are for convenience only and are not to be considered in construing or interpreting any term or provision of this Agreement (or any Appendix hereto).

16.10 Exhibits. All "RECITALS", "DEFINITIONS", exhibits and appendices referred to herein form an integral part of this Agreement and are incorporated into this Agreement by such reference.

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16.11 Interpretation. Except where the context expressly otherwise requires, (i) all pronouns used herein will be deemed to refer to the masculine, feminine or neuter gender as the context requires, (ii) the singular context will include the plural and vice versa and (iii) the word “or” is used in the inclusive sense (and/or).

16.12 Assignment. This Agreement shall be binding upon the successors and assigns of the Parties and the name of a Party appearing herein shall be deemed to include the names of its successors and assigns. Neither Party may assign its interest under this Agreement without the prior written consent of the other Party, such consent not to be unreasonably withheld; provided, however, either Party shall be entitled without the prior written consent of the other Party to assign this Agreement to an Affiliate [***]. Any permitted assignment of this Agreement by either Party will be conditioned upon that Party’s permitted assignee agreeing in writing to comply with all the terms and conditions contained in this Agreement. Any purported assignment without a required consent shall be void. No assignment shall relieve any Party of responsibility for the performance of any obligation that accrued prior to the effective date of such assignment.

16.13 Waiver. The failure of any Party at any time or times to require performance of any provision of this Agreement (including any Appendix hereto) will in no manner affect its rights at a later time to enforce the same. No waiver by any Party of any term, provision or condition contained in this Agreement (including any Appendix hereto), whether by conduct or otherwise, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, provision or condition or of any other term, provision or condition of this Agreement (including any Appendix hereto).

16.14 Dispute Resolution. If the Parties are unable to resolve a dispute, despite its good faith efforts, either Party may refer the dispute to a senior officer of each Party’s respective business unit (or other designee). In the event that no agreement is reached by such senior officers (or other designees) with respect to such dispute within [***] days after its referral to them, either Party may pursue any and all remedies available at law or in equity. For clarity, nothing contained in this Agreement shall preclude either Party from seeking interim or other provisional equitable relief from a court of competent jurisdiction to preserve the status quo or prevent irreparable harm, and such an action may be filed and maintained notwithstanding any ongoing discussions by the senior officers.

16.15 No Presumption Against Drafter. For purposes of this Agreement, each Party hereby waives any rule of construction that requires that ambiguities in this Agreement (including any Appendix hereto) be construed against the drafter.

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IN WITNESS WHEREOF, the parties have executed this Agreement as of the date last signed by the parties hereto.

Vaxart, Inc.

July 17, 2019

Date

By: /s/ Wouter Latour

Name: Wouter Latour

Title: CEO

LONZA HOUSTON, INC.

July 17, 2019

Date

By: /s/ Thomas Fellmer

Name: Thomas Fellmer

Title: Head of BD & PM

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