

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

FORM 8-K

CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 20, 2019



**OPTINOSE, INC.**

(Exact Name of Registrant as Specified in its Charter)

**DELAWARE**

(State or Other Jurisdiction of Incorporation or Organization)

**001-38241**

(Commission File No.)

**42-1771610**

(I.R.S. Employer Identification No.)

**1020 Stony Hill Road, Suite 300  
Yardley, Pennsylvania 19067**

(Address of principal executive offices and zip code)

**(267) 364-3500**

(Registrant's telephone number, including area code)  
(Former name or former address, if changed from last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.001 per share	OPTN	Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

### **Item 1.01 Entry into a Material Definitive Agreement.**

On November 20, 2019, OptiNose, Inc. (the "Company") entered into an underwriting agreement (the "Underwriting Agreement") with Jefferies LLC, Cowen and Company, LLC and Piper Jaffray & Co., as representatives of the several underwriters listed therein (the "Underwriters"), and the selling stockholders named in Schedule B thereto (the "Selling Stockholders"), in connection with its previously announced public offering (the "Offering") of 5,500,000 shares (the "Firm Shares") of the Company's common stock, \$0.001 par value per share (the "Common Stock"), consisting of 4,250,000 shares of Common Stock to be issued and sold by the Company and 1,250,000 shares of Common Stock to be sold by the Selling Stockholders, at a public offering price of \$9.75 per share less underwriting discounts and commissions. Under the terms of the Underwriting Agreement, the Company and the Selling Stockholders granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 825,000 shares of Common Stock at the public offering price less underwriting discounts and commissions (the "Option Shares" and together with the Firm Shares, the "Shares").

The net proceeds to the Company from the Offering, excluding any exercise by the Underwriters of their 30-day option to purchase any of the Option Shares, are expected to be approximately \$39.0 million after deducting underwriting discounts and commissions before offering expenses. The Company will not receive any proceeds from the shares of Common Stock sold by the Selling Stockholders. The Company intends to use the net proceeds from the Offering for working capital and general corporate purposes.

The Offering is being made pursuant to a prospectus supplement dated November 20, 2019 and an accompanying prospectus dated November 9, 2018, pursuant to a Registration Statement on Form S-3 (No. 333-228122), which was initially filed by the Company with the Securities and Exchange Commission ("SEC") on November 1, 2018 and declared effective by the SEC on November 9, 2018.

The Underwriting Agreement contains customary representations, warranties and covenants by the Company and the Selling Stockholders, customary conditions to closing, indemnification obligations of the Company, the Selling Stockholders and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties, and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties. The foregoing summary of the Underwriting Agreement is qualified in its entirety by reference to the Underwriting Agreement attached hereto as Exhibit 1.1 and which is incorporated herein by reference.

Hogan Lovells US LLP, counsel to the Company, delivered an opinion as to legality of the issuance and sale of the Shares in the Offering, a copy of which is attached hereto as Exhibit 5.1 and is incorporated herein by reference.

### **Item 8.01 Other Events.**

The Company issued press releases announcing the launch and pricing of the Offering on November 20, 2019 and November 21, 2019, respectively. Copies of these press releases are attached hereto as Exhibit 99.1 and 99.2, respectively, and are each incorporated herein by reference.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<b>Exhibit No.</b>	<b>Description</b>
<a href="#"><u>1.1</u></a>	<a href="#"><u>Underwriting Agreement, dated November 20, 2019, by and between OptiNose, Inc., Jefferies LLC, Cowen and Company, LLC, Piper Jaffray &amp; Co. and the Selling Stockholders named therein.</u></a>
<a href="#"><u>5.1</u></a>	<a href="#"><u>Opinion of Hogan Lovells US LLP.</u></a>
<a href="#"><u>23.1</u></a>	<a href="#"><u>Consent of Hogan Lovells US LLP (contained in Exhibit 5.1).</u></a>
<a href="#"><u>99.1</u></a>	<a href="#"><u>Press Release issued by the Company announcing the launch of the Offering on November 20, 2019.</u></a>
<a href="#"><u>99.2</u></a>	<a href="#"><u>Press Release issued by the Company announcing the pricing of the Offering on November 21, 2019.</u></a>

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

**OptiNose, Inc.**

By: /s/ Keith A. Goldan

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Keith A. Goldan

Chief Financial Officer

Date: November 21, 2019

5,500,000 Shares

OptiNose, Inc.

UNDERWRITING AGREEMENT

November 20, 2019

JEFFERIES LLC  
COWEN AND COMPANY, LLC  
PIPER JAFFRAY & CO.  
As Representatives of the several Underwriters

c/o JEFFERIES LLC  
520 Madison Avenue  
New York, New York 10022

c/o COWEN AND COMPANY, LLC  
599 Lexington Avenue  
New York, New York 10022

c/o PIPER JAFFRAY & CO.  
800 Nicollet Mall, Suite 800  
Minneapolis, MN 55402

Ladies and Gentlemen:

**Introductory.** OptiNose, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several underwriters named in Schedule A (the “**Underwriters**”) an aggregate of 4,250,000 shares of its common stock, par value \$0.001 per share (the “**Shares**”); and the stockholders of the Company named in Schedule B (collectively, the “**Selling Stockholders**”) severally propose to sell to the Underwriters an aggregate of 1,250,000 Shares, with each Selling Stockholder selling the amount set forth opposite such Selling Stockholder’s name in Schedule B. The 4,250,000 Shares to be sold by the Company and the 1,250,000 Shares to be sold by the Selling Stockholders are collectively called the “**Firm Shares**.” In addition, the Company has granted to the Underwriters an option to purchase up to an additional 637,500 Shares and the Selling Stockholders have severally granted to the Underwriters an option to purchase up to an additional 187,500 Shares, with each Selling Stockholder selling up to the amount set forth opposite such Selling Stockholder’s name in Schedule B, all as provided in Section 2. The additional 637,500 Shares to be sold by the Company and the additional 187,500 Shares to be sold by the Selling Stockholders pursuant to such option are collectively called the “**Optional Shares**.” The Firm Shares and, if and to the extent such option is exercised, the Optional Shares are collectively called the “**Offered Shares**.” Jefferies LLC (“**Jefferies**”), Cowen and Company, LLC (“**Cowen**”) and Piper Jaffray & Co. (“**Piper Jaffray**”) have agreed to act as representatives of the several Underwriters (in such capacity, the “**Representatives**”) in connection with the offering and sale of the Offered Shares. To the extent there are no additional underwriters listed on Schedule A, the term “**Representatives**” as used herein shall mean you, as Underwriters, and the term “**Underwriters**” shall mean either the singular or the plural, as the context requires.

The Company has prepared and filed with the Securities and Exchange Commission (the “**Commission**”) a shelf registration statement on Form S-3, File No. 333-228122, including a base prospectus (the “**Base Prospectus**”) to be used in connection with the public offering and sale of the Offered Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, in the form in which it became effective under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Securities Act**”), including all documents incorporated by reference therein and any information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430A or Rule 430B under the Securities Act, is called the “**Registration Statement**.” Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act in connection with the offer and sale of the Offered Shares is called the “**Rule 462(b) Registration Statement**,” and from and after the date and time of filing of any such Rule 462(b) Registration Statement the term

“Registration Statement” shall include the Rule 462(b) Registration Statement. The preliminary prospectus supplement, dated November 20, 2019, describing the Offered Shares and the offering thereof, together with the Base Prospectus, is called the “**Preliminary Prospectus**,” and the Preliminary Prospectus and any other prospectus supplement to the Base Prospectus in preliminary form that describes the Offered Shares and the offering thereof and is used prior to the filing of the Prospectus (as defined below), together with the Base Prospectus, is called a “**preliminary prospectus**.” As used herein, the term “**Prospectus**” shall mean the final prospectus supplement to the Base Prospectus that describes the Offered Shares and the offering thereof (the “**Final Prospectus Supplement**”), together with the Base Prospectus in the form first used by the Underwriters to confirm sales of the Offered Shares or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act. References herein to the Preliminary Prospectus, any preliminary prospectus and the Prospectus shall refer to both the prospectus supplement and the Base Prospectus components of such prospectus. As used herein, the “**Applicable Time**” is 7:00 p.m. (New York City time) on November 20, 2019. As used herein, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, and “**Time of Sale Prospectus**” means the Preliminary Prospectus, as amended or supplemented immediately prior to the Applicable Time, together with the free writing prospectuses, if any, identified in Schedule C 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 Offered Shares contemplated hereby that is a “written communication” (as defined in Rule 405 under the Securities Act). As used herein, “**Section 5(d) Written Communication**” means each written communication (within the meaning of Rule 405 under the Securities Act) that is made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company to one or more potential investors that are qualified institutional buyers (“**QIBs**”) and/or institutions that are accredited investors (“**IAIs**”), as such terms are respectively defined in Rule 144A and Rule 501(a) under the Securities Act, to determine whether such investors might have an interest in the offering of the Offered Shares; “**Section 5(d) Oral Communication**” means each oral communication, if any, made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company made to one or more QIBs and/or one or more IAIs to determine whether such investors might have an interest in the offering of the Offered Shares; “**Marketing Materials**” means 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 Offered Shares, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically); and “**Permitted Section 5(d) Communication**” means the Section 5(d) Written Communication(s) and Marketing Materials listed on Schedule D attached hereto.

All references in this Agreement to the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus and the Prospectus shall include the documents incorporated or 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 Rule 462(b) Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus 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 Rule 462(b) Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus, as the case may be.

All references in this Agreement to amendments or supplements to the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus shall be deemed to mean and include the filing of any document under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Exchange Act**”) that is or is deemed to be incorporated by reference in the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base Prospectus, or the Prospectus, as the case may be. All references in this Agreement to (i) the Registration Statement, the Preliminary Prospectus, any preliminary prospectus, the Base 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 Offered Shares as contemplated by Section 3(A)(n) of this Agreement. The Company and each of the Selling

Stockholders, acting severally and not jointly, hereby confirm its respective agreements with the Underwriters as follows:

**Section 1. Representations and Warranties.**

**A. Representations and Warranties of the Company.** The Company hereby represents, warrants and covenants to each Underwriter, as of the date of this Agreement, as of the First Closing Date (as hereinafter defined) and as of each Option Closing Date (as hereinafter defined), if any, as follows:

(a) **Compliance with Registration Requirements.** The Registration Statement has become effective under the Securities Act. The Company has complied, to the Commission's satisfaction with all requests of the Commission for additional or supplemental information, if any. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission. At the time the Company's Annual Report on Form 10-K for the year ended December 31, 2018 (the "**Annual Report**") was filed with the Commission, or, if later, at the time the Registration Statement was originally filed with the Commission, the Company met the then-applicable requirements for use of Form S-3 under the Securities Act. The documents incorporated or deemed to be incorporated by reference in the Registration Statement, the Time of Sale 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.

(b) **Disclosure.** Each preliminary prospectus and the Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to EDGAR, was identical (except as may be permitted by Regulation S-T under the Securities Act) to the copy thereof delivered to the Underwriters for use in connection with the offer and sale of the Offered Shares. Each of the Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective, complied and will comply in all material respects with the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, the Time of Sale Prospectus (including any preliminary prospectus wrapper) did not, and at the First Closing Date (as defined in Section 2) and at each applicable Option Closing Date (as defined in Section 2), as then amended or supplemented by the Company, will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The Prospectus (including any Prospectus wrapper), as of its date, did not, and at the First Closing Date and at each applicable Option Closing Date, will not, contain any 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. The representations and warranties set forth in the three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or any post-effective amendment thereto, or the Prospectus or the Time of Sale Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information relating to any Underwriter furnished to the Company in writing by the Representatives expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. There are no contracts or other documents required to be described in the Time of Sale Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement which have not been described or filed as required.

(c) **Free Writing Prospectuses; Road Show.** As of the determination date referenced in Rule 164(h) under the Securities Act, the Company was not, is not or will not be (as applicable) an "ineligible issuer" in connection with the offering of the Offered Shares pursuant to Rules 164, 405 and 433 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 Offered Shares 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. The representations and warranties set forth in the immediately preceding sentence do not apply to statements made in reliance upon and in conformity with information relating to any Underwriters furnished to the Company in writing by the Representatives expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. Except for the free writing prospectuses, if any, identified in Schedule C, and electronic road shows, if any, furnished to the Representatives before first use, the Company has not prepared, used or referred to, and will not, without the Representatives' prior written consent, which consent shall not be unreasonably withheld, prepare, use or refer to, any free writing prospectus. Each Road Show, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

**(d) 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 of the Offered Shares, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Offered Shares other than the Registration Statement, the Time of Sale Prospectus, the Prospectus, the free writing prospectuses, if any, identified on Schedule C hereto or any free writing prospectus reviewed and consented to by the Representatives, which consent shall not be unreasonably withheld, and any Permitted Section 5(d) Communications.

**(e) The Underwriting Agreement.** This Agreement has been duly authorized, executed and delivered by the Company.

**(f) Authorization of the Offered Shares.** The Offered Shares which are to be issued by the Company 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 validly issued, fully paid and nonassessable, and the issuance and sale of such Offered Shares is not subject to any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase such Offered Shares.

**(g) No Applicable Registration or Other Similar Rights.** There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, other than the Selling Stockholders with respect to the Offered Shares to be sold by such Selling Stockholders included in the Registration Statement, except for such rights as have been duly waived.

**(h) No Material Adverse Change.** Except as otherwise disclosed or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Prospectus and the Prospectus: (i) there has been no material adverse change, or any development that would reasonably be expected to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business, properties, operations, assets, liabilities or prospects, whether or not arising from transactions in the ordinary course of business, of the Company and its subsidiaries, considered as one entity (any such change being referred to herein as a "**Material Adverse Change**"); (ii) the Company and its subsidiaries, considered as one entity, have not incurred any material liability or obligation, indirect, direct or contingent, including without limitation any losses or interference with its business from fire, explosion, flood, earthquakes, accident or other calamity, whether or not covered by insurance, or from any strike, labor dispute or court or governmental action, order or decree, that are material, individually or in the aggregate, to the Company and its subsidiaries, considered as one entity, or has entered into any transactions not in the ordinary course of business; and (iii) there has not been any material decrease in the capital stock or any material increase in any short-term or long-term indebtedness of the Company or its subsidiaries and there has been no dividend or distribution of any kind declared, paid or made by the Company or any repurchase or redemption by the Company or any of its subsidiaries of any class of capital stock.



(i) **Independent Accountants.** To the knowledge of the Company, Ernst & Young LLP, which has expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus, is (i) an independent registered public accounting firm as required by the Securities Act, the Exchange Act and the rules of the Public Company Accounting Oversight Board (“PCAOB”), (ii) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X under the Securities Act and (iii) a registered public accounting firm as defined by the PCAOB whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn.

(j) **Financial Statements.** The financial statements filed with the Commission as a part of, or incorporated by reference into, the Registration Statement, the Time of Sale Prospectus and the Prospectus present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of the dates indicated and the results of their operations, changes in stockholders’ equity and cash flows for the periods specified. Such financial statements have been prepared in conformity with generally accepted accounting principles as applied in the United States on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. No other financial statements or supporting schedules are required to be included in the Registration Statement, the Time of Sale Prospectus or the Prospectus. The interactive data in eXtensible Business Reporting Language incorporated by reference into the Registration Statement 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. All disclosures contained or incorporated by reference in the Registration Statement, any preliminary prospectus or the Prospectus and any free writing prospectus, that constitute non-GAAP financial measures (as defined by the rules and regulations under the Securities Act and the Exchange Act) comply, in all material respects, with Regulation G under the Exchange Act and Item 10 of Regulation S-K under the Securities Act, as applicable. To the Company’s knowledge, no person who has been suspended or barred from being associated with a registered public accounting firm, or who has failed to comply with any sanction pursuant to Rule 5300 promulgated by the PCAOB, has participated in or otherwise aided the preparation of, or audited, the financial statements, supporting schedules or other financial data filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(k) **Company’s Accounting System.** The Company and each of its subsidiaries make and keep books and records that are accurate in all material respects and maintain a system of internal accounting controls designed to, and which the Company believes is sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles as applied in the United States and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference into the Registration Statement, the Time of Sale Prospectus and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission’s rules and guidelines applicable thereto.

(l) **Disclosure Controls and Procedures; Deficiencies in or Changes to Internal Control Over Financial Reporting.** The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-15 and 15d-15 under the Exchange Act), which (i) are designed to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to the Company’s principal executive officer and its principal financial officer by others within those entities, particularly during the periods in which the periodic reports required under the Exchange Act are being prepared; (ii) have been evaluated by management of the Company for effectiveness as of the end of the Company’s most recent fiscal quarter; and (iii) are effective in all material respects to perform the functions for which they were established. Since the end of the Company’s most recent audited fiscal year, there have been no significant deficiencies or material weakness in the Company’s internal control over financial reporting (whether or not remediated) and 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. The Company is not aware of any change in its internal control over financial reporting that has occurred

during its most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(m) ***Incorporation and Good Standing of the Company.*** The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware and has the corporate power and authority to own, lease and operate its properties and to conduct its business as described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus and to enter into and perform its obligations under this Agreement. The Company is duly qualified as a foreign corporation to transact business and is in good standing in the Commonwealth of Pennsylvania and each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or in good standing would not reasonably be expected, individually or in the aggregate, to have a material adverse effect on the condition (financial or other), earnings, business, properties, operations, assets, liabilities or prospects of the Company and its subsidiaries, considered as one entity (a "**Material Adverse Effect**").

(n) ***Subsidiaries.*** Each of the Company's "subsidiaries" (for purposes of this Agreement, as defined in Rule 405 under the Securities Act) has been duly incorporated or organized and is validly existing as a corporation or other entity in good standing under the laws of the jurisdiction of its incorporation or organization and has the power and authority (corporate or other) to own, lease and operate its properties and to conduct its business as described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus. Each of the Company's subsidiaries is duly qualified as a foreign corporation, partnership or limited liability company, as applicable, to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or to be in good standing would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. All of the issued and outstanding capital stock or other equity or ownership interests of each of the Company's subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance or adverse claim. None of the outstanding capital stock in any subsidiary was issued in violation of preemptive or similar rights of any securityholder of such subsidiary. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21 to the Registration Statement. OptiNose UK Ltd. is not a "significant subsidiary" (as defined in Rule 405 under the Securities Act).

(o) ***Capitalization and Other Capital Stock Matters.*** The authorized, issued and outstanding capital stock of the Company is as set forth in the Company's latest financial statements, audited or unaudited, as applicable, incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus (other than for subsequent issuances, if any, pursuant to employee benefit plans, or upon the exercise of outstanding options or warrants, in each case, as described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus). The Shares (including the Offered Shares, when issued pursuant to the terms of this Agreement) conform in all material respects to the description thereof contained in the Time of Sale Prospectus. All of the issued and outstanding Shares (including the Shares owned by the Selling Stockholders) have been duly authorized and validly issued, are fully paid and nonassessable and have been issued in compliance with all applicable federal and state securities laws. None of the outstanding Shares was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any of its subsidiaries other than those described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus. The descriptions of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus accurately and fairly present, in all material respects, the information required to be shown with respect to such plans, arrangements, options and rights.

(p) ***Stock Exchange Listing.*** The Shares are registered pursuant to Section 12(b) of the Exchange Act and are listed on the Nasdaq Global Select Market ("**Nasdaq**"), and the Company has taken no action designed to, or

likely to have the effect of, terminating the registration of the Shares under the Exchange Act or delisting the Shares from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. To the Company's knowledge, it is in compliance with all applicable listing requirements of Nasdaq.

(q) **Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required.** Neither the Company nor any of its subsidiaries is in violation of its charter or by-laws, or similar organizational documents, as applicable, or is in default (or, with the giving of notice or lapse of time, would be in default) ("**Default**") under any indenture, loan, credit agreement, note, lease, license agreement, contract, franchise or other instrument (including, without limitation, any pledge agreement, security agreement, mortgage or other instrument or agreement evidencing, guaranteeing, securing or relating to indebtedness) to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound, or to which any of their respective properties or assets are subject (each, an "**Existing Instrument**"), except for such Defaults in Existing Instruments as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. The Company's execution, delivery and performance of this Agreement, consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus and the issuance and sale of the Offered Shares (including the use of proceeds from the sale of the Offered Shares as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption "Use of Proceeds") (i) have been duly authorized by all necessary corporate action and will not result in any violation of the provisions of the charter or by-laws, partnership agreement or operating agreement or similar organizational documents, as applicable, of the Company or any subsidiary, (ii) will not conflict with or constitute a breach of, or Default or a Debt Repayment Triggering Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, or require the consent of any other party to, any Existing Instrument and (iii) will not result in any violation of any law, administrative regulation or administrative or court decree applicable to the Company or any of its subsidiaries, except, in the case of clauses (ii) and (iii) above, as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. No consent, approval, authorization or other order of, or registration or filing with, any court or other governmental or regulatory authority or agency, is required for the Company's execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus, except such as have been obtained or made by the Company and are in full force and effect under the Securities Act and such as may be required under applicable state securities or blue sky laws or the Financial Industry Regulatory Authority, Inc. ("**FINRA**"). As used herein, a "**Debt Repayment Triggering Event**" means any event or condition which gives, or with the giving of notice or lapse of time would give, the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(r) **Compliance with Laws.** The Company and its subsidiaries have been and are in compliance with all applicable laws, rules and regulations, except where failure to be so in compliance would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(s) **No Material Actions or Proceedings.** There is no action, suit, proceeding, inquiry or investigation brought by or before any governmental entity now pending or, to the knowledge of the Company, threatened, against or affecting the Company or any of its subsidiaries, which would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect or materially and adversely affect the consummation of the transactions contemplated by this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject, including ordinary routine litigation incidental to the business, if determined adversely to the Company, would not reasonably be expected to have a Material Adverse Effect. No material labor dispute with the employees of the Company or any of its subsidiaries, or with the employees of any principal supplier, manufacturer, or contractor of the Company, exists or, to the knowledge of the Company, is threatened or imminent.

(t) **Intellectual Property Rights.** The Company and its subsidiaries own, or have obtained valid and enforceable licenses for, the inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets and other intellectual property described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being owned or licensed by them or which, to the Company's knowledge, are necessary for the conduct of their respective businesses as currently conducted or as currently proposed to be conducted in the Registration Statement, the Time of Sale Prospectus and the Prospectus (collectively, "**Intellectual Property**"). To the Company's knowledge: (i) there are no third parties who have rights to any Intellectual Property, except (A) for a security interest in favor of BioPharma Credit PLC, (B) the licenses of Intellectual Property to Inexia Limited and Currax Pharmaceuticals LLC disclosed or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, and (C) for customary reversionary rights of third-party licensors with respect to Intellectual Property that is disclosed or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus as licensed to the Company or one or more of its subsidiaries, and the Company and its subsidiaries have taken all reasonable steps necessary to secure their interests in the Intellectual Property from their employees and contractors; (ii) there is no infringement by third parties of any Intellectual Property; (iii) the Company is not infringing the intellectual property rights of third parties; (iv) the Company is the sole owner of the Intellectual Property owned by it, except for a security interest in favor of BioPharma Credit PLC, and has the valid right to use the Intellectual Property; (v) there are no material defects in any of the patents or patent applications included in the Intellectual Property; (vi) the duties of candor and good faith required by the United States Patent and Trademark Office during the prosecution of the United States patents and patent applications included in the Intellectual Property have been complied with, and all such requirements in foreign offices having similar requirements applicable to the Company and its subsidiaries have been complied with; and (vii) no employee of the Company is in or has been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company. There is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Intellectual Property; (B) challenging the validity, enforceability or scope of any Intellectual Property; or (C) asserting that the Company or any of its subsidiaries infringes or otherwise violates, or would, upon the commercialization of any product or service described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus as under development, infringe, misappropriate or violate, any patent, trademark, trade name, service name, copyright, trade secret or other proprietary rights of others. The Company and its subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any subsidiary, and all such agreements are in full force and effect. The product candidates described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus as under development by the Company or any subsidiary fall within the scope of the claims of one or more patents or patent applications owned by, or exclusively licensed to, the Company or any subsidiary.

(u) **All Necessary Permits, etc.** The Company and its subsidiaries possess such valid and current certificates, authorizations or permits required by state, federal or foreign regulatory agencies or bodies to conduct their respective businesses as currently conducted and as described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus ("**Permits**"). Neither the Company nor any of its subsidiaries is in violation of, or in default under, any of the Permits or has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such Permit.

(v) **Title to Properties.** Neither the Company nor any Subsidiary owns any real property. The Company and its subsidiaries have good and marketable title to all of the personal property and other assets reflected as owned in the financial statements referred to in Section 1(A)(j) above (or elsewhere in the Registration Statement, the Time of Sale Prospectus or the Prospectus), in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, adverse claims and other defects, except for a security interest in favor of BioPharma Credit PLC, and except as would not reasonably be expected, individually or in the aggregate, to materially affect the value of such property or materially interfere with the use thereof. The real property, improvements, equipment and personal property held under lease by the Company or any of its subsidiaries are held under valid and enforceable leases, with

such exceptions as are not material and do not materially interfere with the use made or proposed to be made of such real property, improvements, equipment or personal property by the Company or such subsidiary.

**(w) Tax Law Compliance.** The Company and its subsidiaries have filed all necessary federal, state and foreign income and franchise tax returns or have properly requested extensions thereof and have paid all taxes required to be paid by any of them and, if due and payable, any related or similar assessment, fine or penalty levied against any of them except as may be being contested in good faith and by appropriate proceedings. The Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 1(A)(j) above in respect of all federal, state and foreign income and franchise taxes for all periods as to which the tax liability of the Company or any of its subsidiaries has not been finally determined.

**(x) Insurance.** Each of the Company and its subsidiaries are insured by recognized, financially sound and reputable institutions with policies in such amounts and with such deductibles and covering such risks as the Company reasonably believes are generally deemed adequate and customary for their businesses including, but not limited to, policies covering real and personal property owned or leased by the Company and its subsidiaries against theft, damage, destruction, acts of vandalism and earthquakes and policies covering the Company and its subsidiaries for product liability claims and clinical trial liability claims. The Company has no reason to believe that it or any of its subsidiaries will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

**(y) Compliance with Environmental Laws.** Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect: (i) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products (collectively, "**Hazardous Materials**") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "**Environmental Laws**"); (ii) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance in all material respects with their requirements; (iii) there are no pending or, to the knowledge of the Company, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any of its subsidiaries; and (iv) there are no orders for clean-up or remediation, or an action, suit or proceeding pending or, to the knowledge of the Company threatened, by any private party or governmental body or agency, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

**(z) ERISA Compliance.** The Company and its subsidiaries and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "**ERISA**")) established or maintained by the Company, its subsidiaries or, to the knowledge of the Company, their "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "**ERISA Affiliate**" means, with respect to the Company or any of its subsidiaries, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "**Code**") of which the Company or such subsidiary is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates. No "employee benefit plan" established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). Neither the Company, its subsidiaries nor any of their ERISA Affiliates has

incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each employee benefit plan established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or failure to act, which would reasonably be expected to cause the loss of such qualification.

**(aa) Company Not an “Investment Company.”** The Company is not, and will not be, either after receipt of payment for the Offered Shares or after the application of the proceeds therefrom as described under “Use of Proceeds” in the Registration Statement, the Time of Sale Prospectus or the Prospectus, required to register as an “investment company” under the Investment Company Act of 1940, as amended (the “**Investment Company Act**”).

**(ab) No Price Stabilization or Manipulation; Compliance with Regulation M.** Neither the Company nor any of its subsidiaries has taken, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or of any “reference security” (as defined in Rule 100 of Regulation M under the Exchange Act (“**Regulation M**”)) with respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and has taken no action which would directly or indirectly violate Regulation M.

**(ac) 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 under Item 404 of Regulation S-K to be described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus that have not been described as required.

**(ad) 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, to the knowledge of the Company, the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with the offering of the Offered Shares 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 or NASD Conduct Rules is true, complete and correct.

**(ae) 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 the Selling Stockholders and each of the directors and officers (as defined in Rule 16a-1(f) under the Exchange Act) of the Company. If any additional persons shall become directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) 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 officer of the Company, to execute and deliver to the Representatives a Lock-up Agreement.

**(af) Statistical and Market-Related Data.** All statistical, demographic and market-related data included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate in all material respects. To the extent required, the Company has obtained the written consent to the use of such data from such sources.

**(ag) No Unlawful Contributions or Other Payments.** Neither the Company nor any of its subsidiaries nor, to the Company’s knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any applicable law or of the character required to be disclosed in the Registration Statement, the Time of Sale Prospectus or the Prospectus.

**(ah) Anti-Corruption Laws.** None of the Company, any of its subsidiaries or any of their respective affiliates, directors or officers, employees or, to the Company’s knowledge, any of the Company or its subsidiaries respective agents, representatives or other persons associated with or acting on behalf of the Company or any of its subsidiaries or their respective affiliates has, in the course of its actions for, or on behalf of, the Company or any of

its subsidiaries (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any domestic government official, “foreign official” (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the “**FCPA**”)) or employee, including of any government-owned or controlled entity or a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the FCPA or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act of 2010 of the United Kingdom, or any other applicable non-U.S. anti-bribery or anti-corruption laws; or (iv) made, offered, agreed, requested or taken an act in further of any unlawful or improper bribe, rebate, payoff, influence payment, kickback or other unlawful payment or benefit; and the Company and its subsidiaries and, to the Company’s knowledge, its affiliates have conducted their respective businesses in compliance with the applicable anti-bribery and anti-corruption laws and have instituted and maintain and continue to maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance with such laws and with the representation and warranty contained herein.

**(ai) Money Laundering Laws.** The operations of the Company and its subsidiaries are, and have been conducted at all times, in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “**Money Laundering Laws**”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

**(aj) Sanctions Laws.** Neither the Company nor its subsidiaries, or any of their respective directors, officers or employees or, to the knowledge of the Company, any agent, affiliate or other person associated with or acting on behalf of the Company or its subsidiaries is currently subject to or the target of any U.S. sanctions administered by the U.S. Government (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority (collectively, “**Sanctions**”), nor is the Company or its subsidiaries located, organized or resident in a country or territory that is subject to or the target of Sanctions, including, without limitation, Crimea, Cuba, Iran, North Korea, Sudan and Syria (each, a “**Sanctioned Country**”); and the Company and its subsidiaries will not directly or indirectly use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity, for the purpose of (i) financing or facilitating the activities of or business with any person that currently is subject to or the target of any Sanctions, (ii) financing or facilitating any activities of or business in any Sanctioned Country or (iii) financing or using such proceeds in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of Sanctions. For the past five years, each of the Company and its subsidiaries has not engaged in, is not now engaged in, and will not engage in, any dealings or transactions with any person that at the time of the dealing or transaction is or was subject to or the target of Sanctions or with any Sanctioned Country.

**(ak) Brokers.** Except pursuant to this Agreement, there is no broker, finder or other party that is entitled to receive from the Company or its subsidiaries any brokerage or finder’s fee or other fee or commission as a result of any transactions contemplated by this Agreement.

**(al) 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) contained or incorporated by reference in the Registration Statement, the Time of Sale Prospectus 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.

**(am) No Outstanding Loans or Other Extensions of Credit.** The Company does not have any outstanding extension of credit, in the form of a personal loan, to or for any director or executive officer (or equivalent thereof) of the Company except for such extensions of credit as are expressly permitted by Section 13(k) of the Exchange Act.

**(an) Emerging Growth Company Status.** The Company is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “**Emerging Growth Company**”).

**(ao) Communications.** The Company (i) has not alone engaged in communications with potential investors in reliance on Section 5(d) of the Securities Act other than Permitted Section 5(d) Communications with the consent of the Representatives with entities that are QIBs or IAs and (ii) has not authorized anyone other than the Representatives to engage in such communications; the Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Marketing Materials, Section 5(d) Oral Communications and Section 5(d) Written Communications; as of the Applicable Time, each Permitted Section 5(d) Communication, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, 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 each Permitted Section 5(d) Communication, if any, does not, as of the date hereof, conflict with the information contained or incorporated by reference in the Registration Statement, the Preliminary Prospectus and the Prospectus.

**(ap) Clinical Data and Regulatory Compliance.** The preclinical tests and clinical trials, and other studies (collectively, “studies”) that are described in, or the results of which are referred to in, the Registration Statement, the Time of Sale Prospectus or the Prospectus were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures and controls designed and approved for such studies and with standard medical and scientific research procedures; each description of the results of such studies is accurate and complete in all material respects and fairly presents the data derived from such studies, and the Company and its subsidiaries have no knowledge of any other studies the results of which are inconsistent with, or otherwise call into question, the results described or referred to or incorporated by reference in the Registration Statement, the Time of Sale Prospectuses or the Prospectus; the Company and its subsidiaries have made all such filings and obtained all such approvals as may be required by the Food and Drug Administration of the U.S. Department of Health and Human Services or any committee thereof or from any other U.S. or foreign government or drug or medical device regulatory agency, or health care facility Institutional Review Board (collectively, the “**Regulatory Agencies**”), except where such failure or non-compliance would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect; neither the Company nor any of its subsidiaries has received any notice of, or correspondence from, any Regulatory Agency requiring the termination, suspension or modification of any clinical trials that are described or referred to or incorporated by reference in the Registration Statement, the Time of Sale Prospectus or the Prospectus; and the Company and its subsidiaries have each operated and currently are in compliance in all material respects with all applicable rules, regulations and policies of the Regulatory Agencies.

**(aq) Compliance with Health Care Laws.** The Company and its subsidiaries are, and at all times have been, in compliance with all Health Care Laws, except where failure to be so in compliance would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. For purposes of this Agreement, “**Health Care Laws**” means: (i) the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.) 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 Civil Monetary Penalties Laws (42 U.S.C. Section 1320a-7a), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 et seq.), all applicable federal, state, local and foreign 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. Section 1320a-7), the statutes, regulations and directives of applicable government funded or sponsored healthcare programs, and the regulations promulgated pursuant to such statutes; (iii) the Physician Payments Sunshine



Act (42 U.S.C. Section 1320-7h); (iv) HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the data privacy and security regulations promulgated thereunder; (v) the Patient Protection and Affordable Care Act of 2010 (Pub. Law 111-148), as amended by the Health Care and Education Affordability Reconciliation Act of 2010 (Pub. Law 111-152), the regulations promulgated thereunder; (vi) the U.S. Controlled Substances Act (21 U.S.C. Section 801 et seq.); (vii) quality, safety and accreditation requirements under applicable federal, state, local or foreign laws or regulatory bodies, including, but not limited to, all laws applicable to ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, advertising, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company; and (viii) all other local, state, federal, national, supranational and foreign laws, relating to the regulation of the Company or its subsidiaries. Neither the Company nor its subsidiaries have received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental or regulatory authority or third party alleging that any product operation or activity is in violation of any Health Care Laws nor, to the Company's knowledge, is any such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action threatened. Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, the Company and its subsidiaries have filed, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Laws, and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and accurate on the date filed in all material respects (or were corrected or supplemented by a subsequent submission). Neither the Company nor its subsidiaries are a party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any governmental or regulatory authority. Additionally, neither the Company, its subsidiaries nor any of their respective employees, officers or directors has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that would reasonably be expected to result in debarment, suspension, or exclusion.

(ar) **Compliance with Data Privacy Laws.** To the Company's knowledge, the Company and its subsidiaries are, and at all prior times were, in material compliance with all applicable state and federal data privacy and security laws and regulations (collectively, the "**Privacy Laws**"), except where failure to be so in compliance would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Except where failure to do so would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, the Company and its subsidiaries have in place, comply with, and take commercially reasonable steps reasonably designed to comply in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data (as defined below) (the "**Policies**"). Except where failure to do so would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, the Company and its subsidiaries have at all times made all disclosures to users or customers required by the Privacy Laws, and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been materially inaccurate or in violation of any Privacy Laws in any material respect. Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, the Company further certifies that neither it nor any subsidiary: (i) has received written notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement from or with a governmental or regulatory authority or agency that imposes any obligation or liability under any Privacy Law.

(as) **Cybersecurity.** Except where failure to do so would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, to the Company's knowledge, the Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "**IT Systems**") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. Except where failure to do so would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, the Company and its subsidiaries have implemented and maintained commercially reasonable physical,

technical and administrative controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data, including “Personal Data,” used in connection with their businesses. “**Personal Data**” means (i) a natural person’s name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver’s license number, passport number, credit card number, bank information, or customer or account number; (ii) any information which would qualify as “personally identifying information” under the Federal Trade Commission Act, as amended; (iii) if applicable to the Company, “personal data” as defined by EU General Data Protection Regulation (“**GDPR**”); (iv) if applicable to the Company, any information which would qualify as “protected health information” under HIPAA; and (v) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person’s health or sexual orientation. Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, to the Company’s knowledge, there have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and its subsidiaries are presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification, except where the failure to be in compliance would not reasonably be expected to have a Material Adverse Effect.

**(at) No Contract Terminations.** Neither the Company nor any of its subsidiaries has sent or received any communication regarding termination of, or intent not to renew, any of the contracts or agreements referred to or described in any preliminary prospectus, the Prospectus or any free writing prospectus, or referred to or described in, or filed as an exhibit to, the Registration Statement, and no such termination or non-renewal has been threatened by the Company or any of its subsidiaries or, to the Company’s knowledge, any other party to any such contract or agreement, which threat of termination or non-renewal has not been rescinded as of the date hereof.

**(au) Dividend Restrictions.** No subsidiary of the Company is prohibited or restricted, directly or indirectly, from paying dividends to the Company, or from making any other distribution with respect to such subsidiary’s equity securities or from repaying to the Company or any other subsidiary of the Company any amounts that may from time to time become due under any loans or advances to such subsidiary from the Company or from transferring any property or assets to the Company or to any other subsidiary, except, in each case, for such restrictions or prohibitions imposed under applicable laws or pursuant to the Company’s note purchase agreement entered into with funds managed by Pharmakon Advisors, LP disclosed or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

**(av) No Indebtedness.** Except as otherwise disclosed or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, the Company and its subsidiaries have no outstanding indebtedness other than intercompany debt.

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 Offered Shares 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(A). 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.

**B. Representations and Warranties of the Selling Stockholders.** Each Selling Stockholder, severally and not jointly, represents, warrants and covenants to each Underwriter as follows:

(a) All consents, approvals, authorizations and orders necessary for the execution and delivery by such Selling Stockholder of this Agreement, and for the sale and delivery of the Offered Shares to be sold by such Selling Stockholder hereunder, have been obtained; and such Selling Stockholder has full right, power and authority to enter into this Agreement and to sell, assign, transfer and deliver the Offered Shares to be sold by such Selling Stockholder hereunder.

(b) Such Selling Stockholder has, and immediately prior to the First Closing Date (or the applicable Option Closing Date, as the case may be) such Selling Stockholder will have valid and unencumbered title to the Offered Shares to be sold by such Selling Stockholder hereunder at the First Closing Date (or the applicable Option Closing Date, as the case may be); and, upon delivery of such Offered Shares and payment therefor pursuant hereto, valid and unencumbered title to such Offered Shares will pass to the several Underwriters. Upon payment for the Offered Shares to be sold by such Selling Stockholder pursuant to this Agreement, delivery of such Offered Shares, as directed by the Underwriters, to Cede & Co. (“**Cede**”) or such other nominee as may be designated by the Depository Trust Company (“**DTC**”), registration of such Offered Shares in the name of Cede or such other nominee and the crediting of such Offered Shares on the books of DTC to securities accounts of the Underwriters (assuming that neither DTC nor any such Underwriter has notice of any adverse claim (within the meaning of Section 8-105 of the New York Uniform Commercial Code (the “**UCC**”)) to such Offered Shares), (A) DTC shall be a “protected purchaser” of such Offered Shares within the meaning of Section 8-303 of the UCC, (B) under Section 8-501 of the UCC, the Underwriters will acquire a valid security entitlement in respect of such Offered Shares and (C) no action based on any “adverse claim”, within the meaning of Section 8-102 of the UCC, to such Offered Shares may be asserted against the Underwriters with respect to such security entitlement; for purposes of this representation, such Selling Stockholder may assume that when such payment, delivery and crediting occur, (x) such Offered Shares will have been registered in the name of Cede or another nominee designated by DTC, in each case on the Company’s share registry in accordance with its certificate of incorporation, bylaws and applicable law, (y) DTC will be registered as a “clearing corporation” within the meaning of Section 8-102 of the UCC and (z) appropriate entries to the accounts of the several Underwriters on the records of DTC will have been made pursuant to the UCC.

(c) The sale of the Offered Shares to be sold by such Selling Stockholder hereunder and the compliance by such Selling Stockholder with this Agreement and the consummation of the transactions herein contemplated will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any statute, indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which such Selling Stockholder is a party or by which such Selling Stockholder is bound or to which any of the property or assets of such Selling Stockholder is subject, (B) result in any violation of the provisions of the certificate of incorporation or by-laws of such Selling Stockholder if such Selling Stockholder is a corporation, the partnership agreement of such Selling Stockholder if such Selling Stockholder is a partnership or other similar organization documents of such Selling Stockholder if such Selling Stockholder is not a natural person, corporation or partnership or (C) result in any violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over such Selling Stockholder or any of its subsidiaries or any property or assets of such Selling Stockholder, except, in the case of (A) and (C), as would not, individually or in the aggregate, affect the validity of the Offered Shares to be sold by such Selling Stockholders or reasonably be expected to materially impact such Selling Stockholder’s ability to perform its obligations under this agreement; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental body or agency is required for the performance by such Selling Stockholder of its obligations under this Agreement and the consummation by such Selling Stockholder of the transactions contemplated by this Agreement in connection with the Offered Shares to be sold by such Selling Stockholder hereunder, except the registration under the Securities Act of the Offered Shares, the approval by FINRA of the underwriting terms and arrangements and such consents, approvals, authorizations, orders, registrations or qualifications as may be required under state securities or “blue sky” laws in connection with the purchase and distribution of the Offered Shares by the Underwriters.

(d) On or prior to the date of the Preliminary Prospectus, such Selling Stockholder executed and delivered to the Underwriters an agreement substantially in the form of Exhibit A hereto.

(e) To the extent that any statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement thereto are made in reliance upon and in conformity with written information furnished to the Company by such Selling Stockholder expressly for use therein, such Registration Statement and Preliminary Prospectus did, and the Prospectus and any further amendments or supplements to the Registration Statement and the Prospectus will, when they become effective or are filed with the Commission, as the case may be, conform in all material respects to the requirements of the Securities Act and the rules and regulations of the Commission thereunder and not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein (in the case of the Preliminary Prospectus and the Prospectus and any amendments or supplements thereto, in the light of the circumstances under which they were made) not misleading.

(f) Such Selling Stockholder has not taken and will not take, directly or indirectly, any action that is designed to or that has constituted or might reasonably be expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Offered Shares.

(g) Such Selling Stockholder has delivered or will deliver to you prior to or at the First Closing Date a properly completed and executed United States Treasury Department Form W-9 (or other applicable form or statement specified by Treasury Department regulations in lieu thereof) together with all required attachments to such form.

(h) The obligations of the Selling Stockholders hereunder shall not be terminated by operation of law, whether by the dissolution of any partnership or corporation, or by the occurrence of any other event; if any such partnership or corporation should be dissolved, or if any other such event should occur, before the delivery of the Offered Shares to be sold by such Selling Stockholder hereunder, the Offered Shares to be sold by such Selling Stockholder hereunder shall be delivered by or on behalf of the Selling Stockholders in accordance with the terms and conditions of this Agreement.

Any certificate signed by such Selling Stockholder and delivered to any Underwriter or to counsel for the Underwriters in connection with this Offering shall be deemed a representation and warranty by such Selling Stockholder to each Underwriter as to the matters covered thereby. Notwithstanding anything to the contrary in this Agreement, the representations and warranties of the Selling Stockholders set forth in this Section 1(B) are made only as of the date hereof and the First Closing Date (or the applicable Option Closing Date, as the case may be).

Such Selling Stockholder acknowledges that the Underwriters and, for purposes of the opinions to be delivered pursuant to Section 6 hereof, counsel to the Selling Stockholders and counsel to the Underwriters, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

## **Section 2. Purchase, Sale and Delivery of the Offered Shares.**

(a) **The Firm Shares.** Upon the terms herein set forth, (i) the Company agrees to issue and sell to the several Underwriters an aggregate of 4,250,000 Firm Shares and (ii) the Selling Stockholders, severally and not jointly, agree to sell to the several Underwriters an aggregate of 1,250,000 Firm Shares, with each Selling Stockholder selling the number of Firm Shares set forth opposite such Selling Stockholder's name on Schedule B. 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, severally and not jointly, to purchase from the Company and the Selling Stockholders the respective number of Firm Shares set forth opposite their names on Schedule A. The purchase price per Firm Share to be paid by the several Underwriters to the Company and the Selling Stockholders shall be \$9.165 per share.

(b) **The First Closing Date.** Delivery of certificates for the Firm Shares to be purchased by the Underwriters and payment therefor shall be made at the offices of Cooley LLP, 55 Hudson Yards, New York, New York 10001-2157 (or such other place as may be agreed to by the Company and the Representatives) at 9:00 a.m. New York City time, on November 25, 2019, or such other time and date not later than 1:30 p.m. New York City time, on December 10, 2019 as the Representatives shall designate by notice to the Company (the time and date of such closing are called the "**First Closing Date**"). The Company and the Selling Stockholders hereby acknowledge that

circumstances under which the Representatives may provide notice to postpone the First Closing Date as originally scheduled include, but are not limited to, any determination by the Company, the Selling Stockholders or the Representatives to recirculate to the public copies of an amended or supplemented Prospectus or a delay as contemplated by the provisions of Section 11.

(c) **The Optional Shares; 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 and the Selling Stockholders, severally and not jointly, hereby grant an option to the several Underwriters to purchase, severally and not jointly, up to an aggregate of 825,000 Optional Shares from the Company and the Selling Stockholders at the purchase price per share to be paid by the Underwriters for the Firm Shares, less an amount per share equal to any dividend or distribution declared by the Company and payable on the Firm Shares but not payable on Optional Shares. The option granted hereunder may be exercised at any time and from time to time in whole or in part upon notice by the Representatives to the Company and the Selling Stockholders, 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 Optional Shares as to which the Underwriters are exercising the option and (ii) the time, date and place at which certificates for the Optional Shares will be delivered (which time and date may be simultaneous with, but not earlier than, the First Closing Date; and in the event that such time and date are simultaneous with the First Closing Date, the term “**First Closing Date**” shall refer to the time and date of delivery of certificates for the Firm Shares and such Optional Shares). Any such time and date of delivery, if subsequent to the First Closing Date, is called an “**Option Closing Date**,” shall be determined by the Representatives and shall not be earlier than three or later than five full business days after delivery of such notice of exercise. If any Optional Shares are to be purchased, (a) each Underwriter agrees, severally and not jointly, to purchase the number of Optional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Optional Shares to be purchased as the number of Firm Shares set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Shares and (b) the Company and each Selling Stockholder agrees, severally and not jointly, to sell the number of Optional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Optional Shares set forth in Schedule B opposite the name of such Selling Stockholder (or, in the case of the Company, as the number of Option Shares to be sold as the number of Optional Shares to be sold by the Company as set forth in the paragraph “Introductory” of this Agreement) bears to the total number of Optional Shares. The Representatives may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company and the Selling Stockholders.

(d) **Public Offering of the Offered Shares.** The Representatives hereby advise the Company and the Selling Stockholders that the Underwriters intend to offer for sale to the public, initially on the terms set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus, their respective portions of the Offered Shares as soon after this Agreement has been executed and the Registration Statement has been declared effective as the Representatives, in their sole judgment, have determined is advisable and practicable.

(e) **Payment for the Offered Shares.**

(i) Payment for the Offered Shares to be sold by the Company shall be made at the First Closing Date (and, if applicable, at each Option Closing Date) by wire transfer of immediately available funds to the order of the Company. Payment for the Offered Shares to be sold by each Selling Stockholder shall be made at the First Closing Date (and, if applicable, at each Option Closing Date) by wire transfer of immediately available funds to the order of such Selling Stockholder.

(ii) It is understood that the Representatives have been authorized, for their 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 Shares and any Optional Shares the Underwriters have agreed to purchase. Each of Jefferies, Cowen and Piper Jaffray, individually and not as the Representatives of the Underwriters, may (but shall not be obligated to) make payment for any Offered Shares to be purchased by any Underwriter whose funds shall not have been received by the Representatives by the First Closing 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 Offered Shares.** The Company and each Selling Stockholder, severally and not jointly, shall deliver, or cause to be delivered to the Representatives for the accounts of the several Underwriters certificates for the Firm Shares to be sold by it at the First Closing Date, against release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Company and each Selling Stockholder, severally and not jointly, shall also deliver, or cause to be delivered to the Representatives for the accounts of the several Underwriters, the Optional Shares the Underwriters have agreed to purchase from it at the First Closing Date or the applicable Option Closing Date, as the case may be, against the release of a wire transfer of immediately available funds for the amount of the purchase price therefor. If Jefferies so elects, delivery of the Offered Shares may be made by credit to the accounts designated by Jefferies through The Depository Trust Company's full fast transfer or DWAC programs. The Offered Shares shall be registered in such names and denominations as the Representatives shall have requested at least two full business days prior to the First Closing Date (or the applicable Option Closing Date, as the case may be). 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.

### Section 3. Additional Covenants of the Company.

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

(a) **Delivery of Registration Statement, Time of Sale Prospectus 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 second business day succeeding the date of this Agreement and during the period when a prospectus relating to the Offered Shares 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 Offered Shares, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) **Representatives' Review of Proposed Amendments and Supplements.** During the period when a prospectus relating to the Offered Shares 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 Representatives 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 Representatives' prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Prior to amending or supplementing any preliminary prospectus, the Time of Sale Prospectus or the Prospectus (including any amendment or supplement through incorporation of any report filed under the Exchange Act), the Company shall furnish to the Representatives 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 Representatives' prior written consent, which consent shall not 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 Representatives 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 Representatives' prior written consent, which consent shall not 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 Offered Shares (but in any event if at any time through and including the First 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 Representatives 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 Representatives' prior written consent, which consent shall not 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 Time of Sale Prospectus.** If the Time of Sale Prospectus is being used to solicit offers to buy the Offered Shares 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 Time of Sale Prospectus so that the Time of Sale 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 delivered to a prospective purchaser, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement, or if, in the reasonable opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, the Company shall (subject to Section 3(A)(b) and Section 3(A)(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 Time of Sale Prospectus so that the statements in the Time of Sale 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 delivered to a prospective purchaser, not misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the information contained in the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

**(f) Certain Notifications and Required Actions.** After the date of this Agreement and until completion of the Prospectus Delivery Period (as defined below), the Company shall promptly advise the Representatives in writing (which may be by email) of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission relating to the Registration Statement; (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 Time of Sale Prospectus, 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 Time of Sale Prospectus or the Prospectus or of any order preventing or suspending the use of any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Shares 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 reasonably 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, during the Prospectus Delivery Period (as defined below), 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 Representatives 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(A)(b) and Section 3(A)(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 Representatives' consent to, nor delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Section 3(A)(b) or Section 3(A)(c). As used herein, the term "**Prospectus Delivery Period**" means such period of time after the first date of the public offering of the Shares as in the opinion of counsel for Underwriters a prospectus relating to the Shares is required by law to be delivered (or required to be delivered but for Rule 172 under the Securities Act) in connection with the sales of Shares by any Underwriter or dealer.

**(h) Blue Sky Compliance.** The Company shall cooperate with the Representatives and counsel for the Underwriters to qualify or register the Offered Shares for sale under (or obtain exemptions from the application of) the state securities or blue sky laws or Canadian provincial securities laws (or other foreign laws) of those jurisdictions designated by the Representatives, shall comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Offered Shares. The Company shall not be required to qualify as a foreign corporation 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. The Company will advise the Representatives promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Offered Shares 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 best efforts to obtain the withdrawal thereof as soon as reasonably practicable.

**(i) Use of Proceeds.** The Company intends to apply the net proceeds from the sale of the Offered Shares sold by it in the manner described under the caption "Use of Proceeds" in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

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

**(k) Earnings Statement.** The Company will make generally available to its security holders and to the Representatives 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, which earnings statement shall be deemed to have been made generally available by the Company if the Company is in compliance with its reporting obligations pursuant to the Exchange Act, if such compliance satisfies the conditions of Rule 158, and if such earnings statement is made available on EDGAR.

**(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 Offered Shares as contemplated by this



Agreement, the Registration Statement, the Time of Sale Prospectus and the Prospectus. Without limiting the generality of the foregoing, the Company will, during the period when a prospectus relating to the Offered Shares 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 list, subject to notice of issuance, the Offered Shares sold by the Company on Nasdaq.

(n) **Company to Provide Copy of the Prospectus in Form That May be Downloaded from the Internet.** If requested by the Representatives, the Company shall cause to be prepared and delivered, at its expense, within one business day from the effective date of this Agreement, to the Representatives an “**electronic Prospectus**” to be used by the Underwriters in connection with the offering and sale of the Offered Shares. As used herein, the term “**electronic Prospectus**” means a form of the Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, reasonably satisfactory to the Representatives, that may be transmitted electronically by the Representatives and the other Underwriters to offerees and purchasers of the Offered Shares; (ii) it shall disclose the same information as the paper Prospectus, 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, reasonably satisfactory to the Representatives, that will allow investors to store and have continuously ready access to the Prospectus 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 Prospectus.

(o) **Agreement Not to Offer or Sell Additional Shares.** 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 being referred to herein as the “**Lock-up Period**”), the Company will not, without the prior written consent of the Representatives (which consent may be withheld in their sole discretion), directly or indirectly: (i) sell, offer to sell, contract to sell or lend any Shares 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 Shares or Related Securities; (iii) pledge, hypothecate or grant any security interest in any Shares or Related Securities; (iv) in any other way transfer or dispose of any Shares 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 Shares 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 Shares or Related Securities; (vii) file any registration statement under the Securities Act in respect of any Shares or Related Securities (other than as contemplated by this Agreement with respect to the Offered Shares); 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 issue Shares upon exercise of outstanding warrants or outstanding options, pursuant to any stock option, stock bonus, employee stock purchase or other stock plan or arrangement described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus; (C) issue Shares pursuant to the conversion or exchange of convertible or exchangeable securities; (D) file a registration statement on Form S-8 to register Shares issuable pursuant to the terms of a stock option, stock bonus, employee stock purchase or other stock incentive plan or arrangement described or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus; (E) issue Shares in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by the Company of the securities, businesses, property or other assets of another person or entity; provided, however, that in the case of clause (E), such Shares shall not in the aggregate exceed 5% of the Company’s outstanding shares of common stock on a fully diluted basis after giving effect to the sale of the Offered Shares contemplated by this Agreement; and (F) assist any party subject to a Lock-Up Agreement in the establishment of a trading plan by such party pursuant to Rule 10b5-1 under

the Exchange Act for the transfer of shares of Common Stock, provided that such plan does not provide for the transfer of shares of Common Stock during the Lock-Up Period, and the establishment of such plan does not require or otherwise result in any public filings or other public announcement of such plan during such Lock-Up Period and such plan is otherwise permitted to be implemented during the Lock-up Period pursuant to the terms of the Lock-Up Agreement, if any, between such party and the Underwriters in connection with the offering of the Offered Shares. For purposes of the foregoing, “**Related Securities**” shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for, or convertible into, Shares.

(p) **Future Reports to the Representatives.** During the period of five years hereafter, the Company will furnish to the Representatives (i) c/o Jefferies, at 520 Madison Avenue, New York, New York 10022, Attention: Global Head of Syndicate, (ii) c/o Cowen and Company, LLC, at 599 Lexington Avenue, 25<sup>th</sup> Floor, New York, New York 10022, Attn: Head of Equity Capital Markets, and (iii) c/o Piper Jaffray, at 800 Nicollet Mall, Suite 800, Minneapolis, Minnesota 55402, Attention: Prospectus Delivery Department: (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 or furnishing 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 public report filed or furnished 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 Offered Shares 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; Compliance with Regulation M.** The Company will not take, and will ensure that no affiliate of the Company will take, directly or indirectly, any action designed to or that might reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or any reference security with respect to the Shares, whether to facilitate the sale or resale of the Offered Shares or otherwise, and the Company will, and shall 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 securityholders that restrict or prohibit, expressly or in operation, the offer, sale or transfer of Shares 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, directors and securityholders pursuant to Section 6(l) hereof.

(t) **Company to Provide Interim Financial Statements.** Prior to the First Closing Date and each applicable Option Closing Date, the Company will furnish the Underwriters, as soon as reasonably practicable after they have been prepared by or are available to the Company, a copy of any unaudited interim financial statements of the Company for any period subsequent to the period covered by the most recent financial statements appearing or incorporated by reference in the Registration Statement and the Prospectus.

(u) **Amendments and Supplements to Permitted Section 5(d) Communications.** If at any time following the distribution of any Permitted Section 5(d) Communication, during the Prospectus Delivery Period, there occurred or occurs an event or development as a result of which such Permitted Section 5(d) Communication 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 existing at that subsequent time, not misleading, the

Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Permitted Section 5(d) Communication to eliminate or correct such untrue statement or omission.

(v) **Emerging Growth Company Status.** The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) the time when a prospectus relating to the Offered Shares is not required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) and (ii) the expiration of the Lock-Up Period (as defined herein).

The Representatives, 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.

**Section 4. Payment of Expenses.** The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its or the Selling Stockholders' obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Offered Shares (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Shares, (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Offered Shares 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 Time of Sale Prospectus, the Prospectus, each free writing prospectus prepared by or on behalf of, used by, or referred to by the Company, and each preliminary prospectus, each Permitted Section 5(d) Communication, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, reasonable and documented attorneys' fees and expenses incurred by the Company or the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Offered Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada, and, if requested by the Representatives, preparing and printing a "Blue Sky Survey" or memorandum and a "Canadian wrapper", 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 Offered Shares, including any related filing fees and the reasonable and documented 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", any Permitted Section 5(d) Communication or any Section 5(d) Oral Communication undertaken in connection with the offering of the Offered Shares, 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, travel and lodging expenses of the representatives, employees and officers of the Company and any such consultants, and one half of the cost of any aircraft chartered in connection with the road show, with the other half being paid by the Underwriters, (ix) the fees and expenses associated with listing the Offered Shares on Nasdaq, and (x) all other fees, costs and expenses of the nature referred to in Item 13 of Part II of the Registration Statement; provided, however, that the costs, fees and expenses of counsel, consultants and any other third parties engaged by the Underwriters in clauses (vi) and (vii) shall in no event exceed \$15,000 in the aggregate. Except as provided in this Section 4 or in Section 7, Section 9 or Section 10 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel and their own travel and lodging expenses.

Each Selling Stockholder, severally and not jointly, further agrees with each Underwriter to pay (directly or by reimbursement) all fees and expenses incident to the performance of its obligations under this Agreement that are not otherwise specifically provided for herein or otherwise, including but not limited to (i) fees and expenses of counsel and other advisors for such Selling Stockholder, and (ii) expenses and taxes payable by such Selling Stockholder and incident to the sale and delivery of the Offered Shares to be sold by such Selling Stockholder to the Underwriters hereunder.

This Section 4 shall not affect or modify any separate, valid agreement relating to the allocation of payment of expenses between the Company, on the one hand, and any Selling Stockholder, on the other hand.

**Section 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).

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

(a) **Comfort Letter.** On the date hereof, the Representatives shall have received from Ernst & Young LLP, independent registered public accounting firm for the Company, a letter dated the date hereof addressed to the Underwriters, in form and substance satisfactory to the Representatives, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Auditing Standard No. 6101 (or any successor bulletin), with respect to the audited and unaudited financial statements of the Company and certain financial information contained or incorporated by reference in the Registration Statement, the Time of Sale Prospectus, and each free writing prospectus, if any.

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

(i) The Company shall have filed the Prospectus with the Commission (including the information previously omitted from the Registration Statement pursuant to Rule 430B 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 previously omitted from the Registration Statement pursuant to Rule 430B, 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.** For the period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Shares purchased after the First Closing Date, each Option Closing Date, in the judgment of the Representatives there shall not have occurred any Material Adverse Change.

(d) **Opinion of Counsel for the Company.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received the opinion of Hogan Lovells US LLP, counsel for the Company, dated as of such date, in form and substance satisfactory to the Representatives.

(e) **Opinion of Intellectual Property Counsel for the Company.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received the opinion of Global Patent Group, LLC, intellectual property counsel for the Company, with respect to certain patents and proprietary rights, dated as of such date, in form and substance satisfactory to the Representatives.

(f) **Opinion of Counsel to OptiNose AS.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received the opinion of Aabø-Evensen & Co Advokatfirma AS, special local counsel OptiNose AS, dated as of such date, in form and substance satisfactory to the Representatives.

(g) **Opinion of Counsel for the Underwriters.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received the opinion of Cooley LLP, counsel for the Underwriters in connection with the offer and sale of the Offered Shares, in form and substance satisfactory to the Representatives, dated as of such date.

(h) **Officers' Certificate.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received a certificate executed by the Chief Executive Officer or President of the Company and the Chief Financial Officer of the Company, solely in their respective capacities as such, 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 Change;

(ii) the representations, warranties and covenants of the Company set forth in Section 1(A) 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.

(i) **Bring-down Comfort Letter.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received from Ernst & Young LLP, a letter dated such date, in form and substance satisfactory to the Representatives, which letter shall: (i) 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 First Closing Date or the applicable Option Closing Date, as the case may be; and (ii) cover certain financial information contained in the Prospectus.

(j) **Opinion of Counsel for the Selling Stockholders.** On each of the First Closing Date and each Option Closing Date, the Representatives shall have received the opinion of (1) Ropes & Gray LLP, United States counsel for the Selling Stockholders, dated as of such date, in form and substance satisfactory to the Representatives, and (2) Conyers Dill & Pearman Limited, Bermuda counsel for certain of the Selling Stockholders, dated as of such date, in form and substance satisfactory to the Representatives.

(k) **Selling Stockholders' Certificate.** On each of the First Closing Date and each Option Closing Date, the Representatives shall receive a written certificate executed each Selling Stockholder, dated as of such date, to the effect that:

(i) the representations, warranties and covenants of such Selling Stockholder set forth in Section 1.B) of this Agreement are true and correct with the same force and effect as though expressly made by such Selling Stockholder on and as of such date; and

(ii) such Selling Stockholder has complied in all material respects with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such date.

(l) **Lock-Up Agreements.** On or prior to the date hereof, the Company shall have furnished to the Representatives an agreement in the form of Exhibit A hereto from each director and officer and each Selling Stockholder, and each such agreement shall be in full force and effect on each of the First Closing Date and each Option Closing Date.

(m) **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.

(n) **Approval of Listing.** At the First Closing Date, the Offered Shares sold by the Company shall have been approved for listing on Nasdaq, subject only to official notice of issuance.

(o) **Additional Documents.** On or before each of the First Closing Date and each Option Closing Date, the Representatives 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 Offered Shares 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 Offered Shares as contemplated herein and in connection with the other transactions contemplated by this Agreement shall be satisfactory in form and substance to the Representatives 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 Representatives by notice from the Representatives to the Company and the Selling Stockholders at any time on or prior to the First Closing Date and, with respect to the Optional Shares, 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.

**Section 7. Reimbursement of Underwriters' Expenses.** If this Agreement is terminated by the Representatives pursuant to Section 6 or Section 12(i), (iv) or (v), or if the sale to the Underwriters of the Offered Shares on the First Closing Date is not consummated because of any refusal, inability or failure on the part of the Company or the Selling Stockholders to perform any agreement herein or to comply with any provision hereof, the Company agrees to reimburse the Representatives 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 Representatives and the Underwriters in connection with the proposed purchase and the offering and sale of the Offered Shares, including, but not limited to, reasonable and documented fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges; *provided*, however, that in the event any such termination is effected after the First Closing Date but prior to any Option Closing Date with respect to the purchase of any Optional Shares, the Company shall reimburse the Underwriters for their fees in accordance with Section 4 herein, and shall only be obligated to reimburse the Underwriters for all of their out of pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters, incurred after the First Closing Date in connection with the proposed purchase of any such Optional Shares.

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

**Section 9. Indemnification.**

(a) **Indemnification of the Underwriters.** The Company agrees to indemnify and hold harmless each Underwriter, its affiliates, directors, officers, employees and agents, and each person, if any, who controls any Underwriter within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which such Underwriter or such affiliate, director, officer, employee, agent or controlling

person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Offered Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (A) (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or the omission or alleged omission to state therein 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 included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing), or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading; or (B) the violation of any laws or regulations of foreign jurisdictions where Offered Shares have been offered or sold; and to reimburse each Underwriter and each such affiliate, director, officer, employee, agent and controlling person for any and all reasonable expenses (including the fees and disbursements of counsel) as such expenses are incurred by such Underwriter or such affiliate, director, officer, employee, agent or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with information relating to any Selling Stockholder or Underwriter furnished to the Company by such Selling Stockholder or the Representatives, as applicable, in writing expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any such free writing prospectus, any Marketing Material, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that, with respect to the Underwriters, the only such information consists of the information described in Section 9(c) below. The indemnity agreement set forth in this Section 9(a) shall be in addition to any liabilities that the Company may otherwise have.

**(b)** Each Selling Stockholder, severally and not jointly, agrees to indemnify and hold harmless each Underwriter, its affiliates, directors, officers, employees and agents, and each person, if any, who controls any Underwriter within the meaning of the Securities Act or the Exchange Act against any and all losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Offered Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Selling Stockholder), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or the omission or alleged omission to state therein 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 included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing), or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading, but, in the case of clauses (i) and (ii) above, only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, or any amendment thereto, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed with the prior approval of such Selling Stockholder, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material approved by such Selling Stockholder, any Section 5(d) Written Communication approved by such Selling Stockholder or the Prospectus (or any amendment or supplement to the foregoing), in reliance upon and in conformity with written information furnished to the Company by such Selling Stockholder expressly for use therein in the preparation of the answers to Item 7 of Form S-1; and will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) **Indemnification of the Company, its Directors and Officers and the Selling Stockholders.** Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement, the Selling Stockholders and each person, if any, who controls the Company or any Selling Stockholder within the meaning of the Securities Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company, or any such director, officer, Selling Stockholder or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact included in any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus, that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433 of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement) or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, such preliminary prospectus, the Time of Sale Prospectus, such free writing prospectus, such Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement), in reliance upon and in conformity with information relating to such Underwriter furnished to the Company by the Representatives in writing expressly for use therein; and to reimburse the Company, or any such director, officer, Selling Stockholder or controlling person for any and all expenses (including the fees and disbursements of counsel) as such expenses are incurred by the Company, or any such director, officer, Selling Stockholder or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The Company and each of the Selling Stockholders hereby acknowledges that the only information that the Representatives have furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing) are the statements set forth in the first sentence of the third paragraph under the caption "Underwriting," the first sentence of the first paragraph under the section entitled "Commission and Expenses," the first sentence of the first paragraph under the section entitled "Stabilization," the first paragraph and the first sentence of the second paragraph under the section entitled "Other Activities and Relationships," and the first sentence of the first paragraph under the section entitled "Electronic Distribution," each under the caption "Underwriting" in the Preliminary Prospectus and the Prospectus. The indemnity agreement set forth in this Section 9(c) shall be in addition to any liabilities that each Underwriter may otherwise have.

(d) **Notifications and Other Indemnification Procedures.** Promptly after receipt by an indemnified party under this Section 9 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 9, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party to the extent the indemnifying party is not materially prejudiced as a proximate result of such failure and shall not in any event relieve the indemnifying party from any liability that it may have otherwise than on account of this indemnity agreement. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, that if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such



indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, such approval not to be unreasonably withheld, delayed or conditioned, the indemnifying party will not be liable to such indemnified party under this Section 9 for any reasonable and documented legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with one local counsel for each jurisdiction), representing the indemnified parties who are parties to such action), which counsel (together with one local counsel for each jurisdiction) for the indemnified parties shall be selected by the Representatives (in the case of counsel for the indemnified parties referred to in Section 9(a) or (b) above) or by the Company and the Selling Stockholders (in the case of counsel for the indemnified parties referred to in Section 9(c) above) or (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

**(e) Settlements.** The indemnifying party under this Section 9 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 9(d) hereof, the indemnifying party shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request together with the terms of such settlement and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement; provided, that an indemnifying party shall not be liable for any such settlement effected without its consent if such indemnifying party, prior to the date of such settlement, (1) reimburses such indemnified party in accordance with such request for the amount of such fees and expenses of counsel as the indemnifying party believes in good faith to be reasonable and owing in accordance with the provisions of this Section 9, and (2) provides written notice to the indemnified party that the indemnifying party disputes in good faith the reasonableness of the unpaid balance of such fees and expenses or its liability with respect thereto. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and does not include an admission of fault or culpability or a failure to act by or on behalf of such indemnified party.

**Section 10. Contribution.** If the indemnification provided for in Section 9 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein (other than as a result of the limitations on indemnification specified therein), then the Company, each Selling Stockholder, severally and not jointly, and the Underwriters shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company or such Selling Stockholder, as applicable, on the one hand, and the Underwriters, on the other hand, from the offering of the Offered Shares pursuant to this Agreement or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company or such Selling Stockholder, as applicable, on the one hand, and the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company or such Selling Stockholder, as applicable, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Offered Shares pursuant to this

Agreement shall be deemed to be in the same respective proportions as the total proceeds from the offering of the Offered Shares pursuant to this Agreement (before deducting expenses) received by the Company or such Selling Stockholder, as applicable, and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth on the front cover page of the Prospectus, bear to the aggregate initial public offering price of the Offered Shares as set forth on such cover. The relative fault of the Company or such Selling Stockholder, as applicable, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or such Selling Stockholder, as applicable, on the one hand, or the Underwriters, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 9(d), any documented legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 9(d) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 10; *provided, however*, that no additional notice shall be required with respect to any action for which notice has been given under Section 9(d) for purposes of indemnification.

The Company, the Selling Stockholders and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 10 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 10.

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 such Underwriter in connection with the Offered Shares underwritten by it and distributed to the public. No person 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' obligations to contribute pursuant to this Section 10 are several, and not joint, in proportion to their respective underwriting commitments as set forth opposite their respective names on Schedule A. For purposes of this Section 10, each affiliate, director, officer, employee and agent of an Underwriter and each person, if any, who controls an Underwriter within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company. The liability of each Selling Stockholder under such Selling Stockholder's representations and warranties contained in Section 1(B) hereof and under the indemnity and contribution agreements contained in Section 9 and this Section 10 shall be limited to an amount equal to the gross proceeds received by such Selling Stockholder in respect of the Offered Shares sold by such Selling Stockholder hereunder (after deducting underwriting discounts and commissions, but before giving effect to expenses). The Company and the Selling Stockholders may agree, as among themselves and without limiting the rights of the Underwriters under this Agreement, as to the respective amounts of such liability for which they each shall be responsible.

**Section 11. Default of One or More of the Several Underwriters.** If, on the First Closing Date or any Option Closing Date any one or more of the several Underwriters shall fail or refuse to purchase Offered Shares that it or they have agreed to purchase hereunder on such date, and the aggregate number of Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Offered Shares to be purchased on such date, the Representatives may make arrangements satisfactory to the Company and the Selling Stockholders for the purchase of such Offered Shares 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 Shares set forth opposite their respective names on Schedule A bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as may be specified by the Representatives with the consent of the non-defaulting Underwriters, to purchase the Offered Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date. If, on the First Closing Date or any Option Closing Date any

one or more of the Underwriters shall fail or refuse to purchase Offered Shares and the aggregate number of Offered Shares with respect to which such default occurs exceeds 10% of the aggregate number of Offered Shares to be purchased on such date, and arrangements satisfactory to the Representatives and the Company for the purchase of such Offered Shares are not made within 48 hours after such default, this Agreement shall terminate without liability of any party (other than the breaching Representative) 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 Representatives or the Company shall have the right to postpone the First 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.

**Section 12. Termination of this Agreement.** Prior to the purchase of the Firm Shares by the Underwriters on the First Closing Date, this Agreement may be terminated by the Representatives by notice given to the Company and the Selling Stockholders if at any time: (i) trading or quotation in any of the Company’s securities shall have been suspended or limited by the Commission or by Nasdaq, or trading in securities generally on either Nasdaq or The New York Stock Exchange 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 federal or New York authorities; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any 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 Representatives is material and adverse and makes it impracticable to market the Offered Shares in the manner and on the terms described in the Time of Sale Prospectus or the Prospectus or to enforce contracts for the sale of securities; (iv) in the judgment of the Representatives there shall have occurred any Material Adverse Change; 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 Representatives 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 or the Selling Stockholders to any Underwriter, except to the extent that the Company shall be obligated to reimburse the expenses of the Representatives and the Underwriters pursuant to Section 4 or Section 7 hereof or (b) any Underwriter or the Selling Stockholders to the Company; *provided, however*, that the provisions of Section 9 and Section 10 shall at all times be effective and shall survive such termination.

**Section 13. No Advisory or Fiduciary Relationship.** The Company and each Selling Stockholder, severally and not jointly, acknowledges and agrees that (a) the purchase and sale of the Offered Shares pursuant to this Agreement, including the determination of the public offering price of the Offered Shares and any related discounts and commissions, is an arm’s-length commercial transaction between the Company and each of the Selling Stockholders, on the one hand, and the several Underwriters, on the other hand, (b) 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 such Selling Stockholder, or the Company’s other stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company or such Selling Stockholder 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 or such Selling Stockholder on other matters) and no Underwriter has any obligation to the Company or such Selling Stockholder with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (d) 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 such Selling Stockholder, and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company and such Selling Stockholder has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

**Section 14. Representations and Indemnities to Survive Delivery.** The respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers, of the Selling Stockholders 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 or directors or any controlling person, or the Selling Stockholders, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Offered Shares sold hereunder and any termination of this Agreement.

**Section 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 Representatives: Jefferies LLC  
520 Madison Avenue  
New York, New York 10022  
Facsimile: (646) 619-4437  
Attention: General Counsel

Cowen and Company, LLC  
599 Lexington Avenue, 25<sup>th</sup> Floor  
New York, New York 10022  
Facsimile: (646) 562-1130  
Attention: General Counsel

Piper Jaffray & Co.  
800 Nicollet Mall, Suite 800  
Minneapolis, Minnesota 55402  
Facsimile: (612) 303-1068  
Attention: General Counsel

with a copy to: Cooley LLP  
55 Hudson Yards  
New York, New York 10001-2157  
Facsimile: (212) 479-6275  
Attention: Divakar Gupta

If to the Company: OptiNose, Inc.  
1020 Stony Hill Road, Suite 300  
Yardley, Pennsylvania 19067  
Facsimile: (267) 395-2119  
Attention: Chief Executive Officer and Chief Legal Officer

with a copy to: Hogan Lovells US LLP  
1735 Market Street, 23rd Floor  
Philadelphia, Pennsylvania, 19103  
Facsimile: (267) 675-4671  
Attention: Steven J. Abrams

If to a Selling Stockholder: To such Selling Stockholder  
c/o Avista Capital Holdings LP  
65 East 55<sup>th</sup> Street, 18<sup>th</sup> Floor  
New York, New York 10022  
Facsimile: (212) 593-6901

Attention: Ben Silbert

with a copy to: Ropes & Gray LLP  
Prudential Tower  
800 Boylston Street  
Boston, Massachusetts 02199  
Facsimile: (617) 951-7050  
Attention: Craig E. Marcus

Any party hereto may change the address for receipt of communications by giving written notice to the others.

**Section 16. Successors.** This Agreement will inure to the benefit of and be binding upon the parties hereto, including any substitute Underwriters pursuant to Section 11 hereof, and to the benefit of the affiliates, directors, officers, employees, agents and controlling persons referred to in Section 9 and Section 10, and in each case their respective successors, and no other person will have any right or obligation hereunder. The term “**successors**” shall not include any purchaser of the Offered Shares as such from any of the Underwriters merely by reason of such purchase.

**Section 17. 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.

**Section 18. Recognition of the U.S. Special Resolution Regimes.**

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States. For purposes of this Agreement, (A) “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); (B) “**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); (C) “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and (D) “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

**Section 19. Governing Law Provisions.** This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court

as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

**Section 20.**

**General Provisions.** This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

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 Time of Sale Prospectus, 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.

*[signature pages follow]*

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to the Company and the Selling Stockholders the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

**OPTINOSE, INC.**

By: /s/ Peter K. Miller  
Name: Peter K. Miller  
Title: Chief Executive Officer

**AVISTA CAPITAL PARTNERS II, L.P.**

**By: Avista Capital Partners II GP, LLC, its General Partner**

By: /s/ Ben Silbert  
Name: Ben Silbert  
Title: Authorized Representative

**AVISTA CAPITAL PARTNERS (OFFSHORE) II, L.P.**

**By: Avista Capital Partners II GP, LLC, its General Partner**

By: /s/ Ben Silbert  
Name: Ben Silbert  
Title: Authorized Representative

**AVISTA CAPITAL PARTNERS (OFFSHORE) II-A, L.P.**

**By: Avista Capital Partners II GP, LLC, its General Partner**

By: /s/ Ben Silbert  
Name: Ben Silbert  
Title: Authorized Representative



The foregoing Underwriting Agreement is hereby confirmed and accepted by the Representatives in New York, New York as of the date first above written.

**JEFFERIES LLC  
COWEN AND COMPANY, LLC  
PIPER JAFFRAY & CO.**

Acting individually and as Representatives  
of the several Underwriters named in  
the attached Schedule A.

**JEFFERIES LLC**

By: /s/ Charles L. Glazer  
Name: Charles L. Glazer  
Title: Managing Director

**COWEN AND COMPANY, LLC**

By: /s/ David Bohn  
Name: David Bohn  
Title: Managing Director

**PIPER JAFFRAY & CO.**

By: /s/ Neil Riley  
Name: Neil Riley  
Title: Managing Director

<b>Underwriters</b>	<b>Number of Firm Shares to be Purchased</b>	<b>Maximum Number of Optional Shares to be Purchased</b>
Jefferies LLC	1,998,350	299,753
Cowen and Company, LLC	1,613,311	241,997
Piper Jaffray & Co.	1,338,284	200,743
BMO Capital Markets Corp.	550,055	82,507
Total	<u>5,500,000</u>	<u>825,000</u>

<b>Selling Stockholders</b>	<b>Number of Firm Shares to be Sold</b>	<b>Maximum Number of Optional Shares to be Sold</b>
Avista Capital Partners II, L.P. (a)	887,722	133,158
Avista Capital Partners (Offshore) II, L.P. (b)	291,516	43,727
Avista Capital Partners (Offshore) II-A, L.P. (b)	70,762	10,615
Total:.....	1,250,000	187,500

(a) The Selling Stockholder is represented by Ropes & Gray LLP

(b) The Selling Stockholder is represented by Conyers Dill & Pearman Limited

**Free Writing Prospectuses Included in the Time of Sale Prospectus**

None.

**Pricing Information Included in the Time of Sale Prospectus**

Price per share to the public:	\$9.75
Number of shares being sold by the Company:	4,250,000
Number of shares being sold by the Selling Stockholders:	1,250,000
Number of shares potentially issuable pursuant to the option to purchase additional shares:	825,000

**Permitted Section 5(d) Communications**

Investor presentation used in wall-cross marketing beginning November 18, 2019.

Form of Lock-up Agreement

\_\_\_\_\_, 2019

Jefferies LLC  
Cowen and Company, LLC

Piper Jaffray & Co.

As Representatives of the Several Underwriters

c/o Jefferies LLC  
520 Madison Avenue  
New York, New York 10022

c/o Cowen and Company, LLC  
599 Lexington Avenue, 25<sup>th</sup> Floor  
New York, New York 10022

c/o Piper Jaffray & Co.  
800 Nicollet Mall, Suite 800  
Minneapolis, MN 55402

RE: OptiNose, Inc. (the “**Company**”)

Ladies & Gentlemen:

The undersigned is an owner of shares of common stock, par value \$0.001 per share, of the Company (“**Shares**”) or of securities convertible into or exchangeable or exercisable for Shares. The Company proposes to conduct a public offering of Shares to be sold by the Company and certain stockholders of the Company (the “**Offering**”) for which Jefferies LLC, Cowen and Company, LLC and Piper Jaffray & Co. will act as the representatives (each a “**Representative**” and collectively the “**Representatives**”) of the underwriters. The undersigned recognizes that the Offering will benefit each of the Company and the undersigned. The undersigned acknowledges that the underwriters are relying on the representations and agreements of the undersigned contained in this letter agreement in conducting the Offering and, at a subsequent date, in entering into an underwriting agreement (the “**Underwriting Agreement**”) and other underwriting arrangements with the Company and certain stockholders of the Company with respect to the Offering.

Annex A sets forth definitions for capitalized terms used in this letter agreement that are not defined in the body of this letter agreement. Those definitions are a part of this letter agreement.

In consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees that, during the Lock-up Period, subject to the exceptions set forth in this letter agreement, the undersigned will not (and will cause any Family Member not to), without the prior written consent of Jefferies LLC, which consent may be withheld in its discretion:

- Sell or Offer to Sell any Shares or Related Securities currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by the undersigned or such Family Member,

- enter into any Swap,
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any Shares or Related Securities, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration, or
- publicly announce any intention to do any of the foregoing.

The foregoing will not apply to the registration of the offer and sale of the Shares, and the sale of the Shares to the underwriters, in each case as contemplated by the Underwriting Agreement. In addition, the foregoing restrictions shall not apply to (i) sales of Shares acquired in the Offering or after the completion of the Offering; provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with such sales during the Lock-Up Period; (ii) the transfer of Shares or Related Securities by gift, (iii) the transfer of Shares or Related Securities by will or intestate succession to the legal representative, heir or beneficiary of the undersigned, (iv) the transfer of Shares or Related Securities to a trust whose beneficiaries consist exclusively of one or more of the undersigned and/or a member of the undersigned's Immediate Family, (v) transfers or dispositions of the undersigned's Shares or Related Securities to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned or any Family Member, (vi) distributions of the undersigned's Shares or Related Securities to limited partners, general partners, members, stockholders or other equityholders of the undersigned, (vii) by operation of law, including pursuant to a domestic order or negotiated divorce settlement or (viii) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity, the transfer of Shares or Related Securities to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act) of the undersigned or to any investment fund or other entity controlled or managed by, or under common control or management as, the undersigned, provided that any such transfer or distribution set forth in (ii) through (v) and (vii) above shall not involve a disposition for value; *provided, however*, that in any such case set forth in (ii) through (vii) above, it shall be a condition to such transfer that:

- each transferee executes and delivers to the Representatives an agreement in form and substance satisfactory to Jefferies LLC stating that such transferee is receiving and holding such Shares and/or Related Securities subject to the provisions of this letter agreement and agrees not to Sell or Offer to Sell such Shares and/or Related Securities, engage in any Swap or engage in any other activities restricted under this letter agreement during the Lock-Up Period except in accordance with this letter agreement (as if such transferee had been an original signatory hereto), and
- prior to the expiration of the Lock-up Period, no public disclosure or filing under the Exchange Act by any party to the transfer (donor, donee, transferor or transferee) shall be required, or made voluntarily, reporting a reduction in beneficial ownership of Shares or Related Securities in connection with such transfer, unless (in the case of a distribution excepted pursuant to clause (vi) above, such filing indicates in the footnotes thereto that the filing relates to a distribution to limited partners, general partners, members, shareholders or other equityholders of the undersigned, as applicable, and that no Shares were sold to the public by the reporting person and the Shares remain subject to a lock-up agreement with the underwriters of the Offering.

Furthermore, notwithstanding the restrictions imposed by this letter agreement, the undersigned may (i) exercise an option to purchase Shares granted under any equity incentive plan or purchase shares under any stock purchase plan of the Company, each existing as of the date of the Prospectus and described or incorporated by reference in the Prospectus, *provided* that the Shares issued upon such exercise or purchase shall continue to be subject to the restrictions on transfer set forth in this letter agreement, (ii) establish a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Shares, *provided* that such plan does not provide for any transfers of Shares or Related Securities during the Lock-up Period and the entry into such plan is not publicly disclosed, including in any filing under the

Exchange Act, during the Lock-up Period or (iii) transfer Shares or Related Securities (A) as forfeitures to satisfy tax withholding obligations of the undersigned in connection with the vesting or exercise of equity awards by the undersigned pursuant to the Company's equity incentive plan existing as of the date of the Prospectus and described or incorporated by reference in the Prospectus, (B) pursuant to a net exercise or cashless exercise (to satisfy exercise price or related withholding obligations) by the undersigned of outstanding equity awards pursuant to the Company's equity incentive plan existing as of the date of the Prospectus and described or incorporated by reference in the Prospectus, *provided* that any Shares acquired upon the net exercise or cashless exercise of equity awards described in this clause (B) shall be subject to the restrictions set forth in this letter agreement, (C) pursuant to a bona fide third-party tender offer for all outstanding shares of the Company, merger, consolidation or other similar transaction made to all holders of the Company's securities involving a change of control of the Company (including, without limitation, the entering into any lock-up, voting or similar agreement pursuant to which the undersigned may agree to transfer, sell, tender or otherwise dispose of common stock or other such securities in connection with such transaction, or vote any common stock or other such securities in favor of any transaction), *provided* that in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by the undersigned shall remain subject to the provisions of this letter agreement, or (D) that may be deemed to have occurred as a result of the exercise of warrants, *provided* that the restrictions set forth in this letter agreement shall apply to any of the undersigned's Shares or Related Securities issued upon such exercise; *provided* that, in the case of a transfer pursuant to clause (A) or (B) above, if the undersigned is required to make a filing under the Exchange Act reporting a reduction in beneficial ownership of Shares during the Lock-up Period, the undersigned shall include a statement in such report to the effect that the purpose of such transfer was to cover tax obligations of the undersigned in connection with such exercise.

In the event that, during the Lock-up Period, the Representatives waive any prohibition set forth in this letter or any similar agreement on the transfer of Shares or Related Securities held by (a) any person or entity that has delivered a copy of this or a similar letter agreement to the Representatives and beneficially owns 1% or more of the outstanding Shares, calculated as of the closing of the Offering, or (b) any director or executive officer of the Company, the Representatives shall be deemed to have also waived the prohibitions set forth in this letter agreement that would otherwise have applied to the undersigned with respect to the same percentage of the undersigned's Shares or Related Securities as the relative percentage of aggregate Shares or Related Securities held by such party receiving the waiver that are subject to such waiver. Notwithstanding the foregoing, the provisions of this paragraph shall not apply if the waiver is effected solely to permit a transfer not involving a disposition for value and the transferee has agreed in writing to be bound by the same terms described in this letter agreement to the extent and for the duration that such terms remain in effect at the time of such transferor.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of Shares or Related Securities held by the undersigned and the undersigned's Family Members, if any, except in compliance with the foregoing restrictions.

With respect to the Offering only, the undersigned waives any registration rights relating to registration under the Securities Act of the offer and sale of any Shares and/or any Related Securities owned either of record or beneficially by the undersigned, including any rights to receive notice of the Offering.

The undersigned confirms that the undersigned has not, and has no knowledge that any Family Member has, directly or indirectly, taken any action designed to or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale of the Shares. The undersigned will not, and will cause any Family Member not to take, directly or indirectly, any such action.

Whether or not the Offering occurs as currently contemplated or at all depends on market conditions and other factors. The Offering will only be made pursuant to the Underwriting Agreement, the terms of which are subject to negotiation between the Company, certain stockholders of the Company and the underwriters.

The undersigned hereby represents and warrants that the undersigned has full power, capacity and authority to enter into this letter agreement. This letter agreement is irrevocable and will be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned.



Notwithstanding anything herein to the contrary, if (a) the initial closing of the Offering has not occurred prior to December 31, 2019, (b) after being executed, the Underwriting Agreement (other than the provisions thereof that survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares to be sold thereunder or (c) the Company notifies the underwriters in writing that it does not intend to proceed with the Offering, then this letter agreement shall terminate and the undersigned shall be released from all obligations hereunder upon the earliest to occur of the events specified above.

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

*[signature page follows]*

Very truly yours,

\_\_\_\_\_  
Name of Security Holder (*Print exact name*)

By: \_\_\_\_\_  
Signature

If not signing in an individual capacity:

\_\_\_\_\_  
Name of Authorized Signatory (*Print*)

\_\_\_\_\_  
Title of Authorized Signatory (*Print*)

*(indicate capacity of person signing if signing as custodian, trustee, or on behalf of an entity)*

**Certain Defined Terms  
Used in Lock-up Agreement**

For purposes of the letter agreement to which this Annex A is attached and of which it is made a part:

- “**Call Equivalent Position**” shall have the meaning set forth in Rule 16a-1(b) under the Exchange Act.
- “**Exchange Act**” shall mean the Securities Exchange Act of 1934, as amended.
- “**Family Member**” shall mean the spouse of the undersigned, an immediate family member of the undersigned or an immediate family member of the undersigned’s spouse, in each case living in the undersigned’s household or whose principal residence is the undersigned’s household (regardless of whether such spouse or family member may at the time be living elsewhere due to educational activities, health care treatment, military service, temporary internship or employment or otherwise).
- “**Immediate Family**” shall have the meaning set forth in Rule 16a-1(e) under the Exchange Act.
- “**Lock-up Period**” shall mean the period beginning on the date hereof and continuing through the close of trading on the date that is 90 days after the date of the Prospectus (as defined in the Underwriting Agreement).
- “**Put Equivalent Position**” shall have the meaning set forth in Rule 16a-1(h) under the Exchange Act.
- “**Related Securities**” shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into Shares.
- “**Securities Act**” shall mean the Securities Act of 1933, as amended.
- “**Sell or Offer to Sell**” shall mean to:
  - sell, offer to sell, contract to sell or lend,
  - effect any short sale or establish or increase a Put Equivalent Position or liquidate or decrease any Call Equivalent Position
  - pledge, hypothecate or grant any security interest in, or
  - in any other way transfer or dispose of,

in each case whether effected directly or indirectly.

- “**Swap**” shall mean any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise.

Capitalized terms not defined in this Annex A shall have the meanings given to them in the body of this letter agreement.

November 21, 2019

Board of Directors  
OptiNose, Inc.  
1020 Stony Hill Road, Suite 300  
Yardley, Pennsylvania 19067

Ladies and Gentlemen:

We are acting as counsel to OptiNose, Inc., a Delaware corporation (the "**Company**"), in connection with its registration statement on Form S-3 (File No. 333-228122) (the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**"), relating to the proposed public offering of up to 6,325,000 shares of common stock, par value \$0.001 per share, of the Company (the "**Shares**"), of which 4,887,500 shares are to be sold by the Company (including up to 637,500 shares that may be issued by the Company upon the exercise of an option to purchase additional shares granted to the underwriters) (collectively, the "**Company Shares**") and 1,437,500 shares are to be sold by the selling stockholders (including up to 187,500 shares that may be sold by the selling stockholders upon the exercise of an option to purchase additional shares granted to the underwriters) (collectively, the "**Stockholder Shares**"), in each case, pursuant to the Underwriting Agreement, dated as of November 20, 2019, among the Company, the selling stockholders and the representatives of the underwriters named therein (the "**Underwriting Agreement**"), as described in the Prospectus, dated November 9, 2018 (the "**Registration Statement Prospectus**"), which forms a part of the Registration Statement, as supplemented by the Prospectus Supplement, dated November 20, 2019 (together with the Registration Statement Prospectus, the "**Prospectus**"). This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations. As used herein, the term "Delaware General Corporation Law, as amended" includes the statutory provisions contained therein, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws.

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. "Hogan Lovells" is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Beijing Birmingham Boston Brussels Caracas Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterrey Moscow Munich New York Northern Virginia Paris Perth Philadelphia Rio de Janeiro Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Ulaanbaatar Warsaw Washington DC Associated offices: Budapest Jakarta Shanghai FTZ Zagreb. Business Service Centers: Johannesburg Louisville. For more information see [www.hoganlovells.com](http://www.hoganlovells.com)

Based upon, subject to and limited by the foregoing, we are of the opinion that (a) following (i) execution and delivery by the Company and the selling stockholders of the Underwriting Agreement, (ii) issuance and sale of the Company Shares pursuant to the terms of the Underwriting Agreement, and (iii) receipt by the Company of the consideration for the Company Shares specified in the resolutions of the Board of Directors and the Pricing Committee of the Board of Directors, the Company Shares will be validly issued, fully paid and nonassessable and (b) the Stockholder Shares have been validly issued and are fully paid and non-assessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Registration Statement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Company's Current Report on Form 8-K to be filed with the Securities and Exchange Commission on the date hereof and to the reference to this firm under the caption "Legal Matters" in the Prospectus constituting a part of the Registration Statement. In giving this consent, we do not thereby admit that we are an "expert" within the meaning of the Act.

Very truly yours,

/s/ HOGAN LOVELLS US LLP

HOGAN LOVELLS US LLP



## Optinose Announces Proposed Public Offering of Common Stock

**YARDLEY, Pa., November 20, 2019** -- Optinose (NASDAQ:OPTN), a pharmaceutical company focused on patients treated by ear, nose and throat (ENT) and allergy specialists, today announced that it and certain selling stockholders intend to offer and sell shares of its common stock in an underwritten public offering. In addition, Optinose is expected to grant the underwriters an option for a period of 30 days to purchase up to an additional 15% of the total number of shares to be offered at the public offering price, less the underwriting discount. The offering is subject to market and other conditions, and there can be no assurance as to whether or when the offering may be completed.

Optinose intends to use the net proceeds of the offering for working capital and general corporate purposes. Optinose will not receive any proceeds from the sale of shares by the selling stockholders.

Jefferies, Cowen and Piper Jaffray are acting as the joint lead book-running managers for the offering. BMO Capital Markets is acting as book-running manager for the offering.

The securities described above are being offered by Optinose and the selling stockholders pursuant to a shelf registration statement on Form S-3 (No. 333-228122) previously filed with and declared effective by the Securities and Exchange Commission (SEC) on November 9, 2018.

The securities will be offered by means of a prospectus supplement and accompanying prospectus relating to the offering that form a part of the registration statement. A preliminary prospectus supplement and the accompanying prospectus relating to and describing the terms of the offering will be filed with the SEC and will be available on the SEC's website at <http://www.sec.gov>. Copies of the final prospectus supplement, when available, and accompanying prospectus relating to the offering may be obtained from: Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, or by telephone at 877-821-7388 or by email at [Prospectus\\_Department@Jefferies.com](mailto:Prospectus_Department@Jefferies.com); Cowen and Company, LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, Attention: Prospectus Department, email: [PostSaleManualRequests@broadridge.com](mailto:PostSaleManualRequests@broadridge.com), telephone: 1-833-297-2926; Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402, or by telephone at 800-747-3924 or by email at [prospectus@pjc.com](mailto:prospectus@pjc.com); or BMO Capital Markets Corp., Attention: Equity Syndicate Department, 3 Times Square, 25th Floor, New York, NY 10036, or by telephone at 800-414-3627 or by email at [bmo\\_prospectus@bmo.com](mailto:bmo_prospectus@bmo.com).

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of, these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification of these securities under the securities laws of any such state or jurisdiction.

### About Optinose

Optinose is a specialty pharmaceutical company focused on serving the needs of patients cared for by ear, nose and throat (ENT) and allergy specialists. Optinose has offices in the U.S., the U.K. and Norway.

### Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. All statements that are not historical facts are hereby identified as forward-looking statements for this purpose and include, among others, statements regarding the timing and success of the proposed offering and the expected use of proceeds from the proposed offering. Forward-looking statements are based upon management's current expectations and assumptions and are subject to a number of risks, uncertainties and other factors that could cause actual results and events to differ materially and adversely from those indicated by such forward-looking statements including, among others: satisfaction of the customary closing conditions of the offering;

delays in obtaining required stock exchange or other regulatory approvals; stock price volatility; the impact of general business and economic conditions; and the risks, uncertainties and other factors discussed under the caption "Item 1A. Risk Factors" and elsewhere in Optinose's most recent Form 10-K and Form 10-Q filings with the Securities and Exchange Commission - which are available at [www.sec.gov](http://www.sec.gov). As a result, you are cautioned not to place undue reliance on any forward-looking statements. Any forward-looking statements made in this press release speak only as of the date of this press release, and Optinose undertakes no obligation to update such forward-looking statements, whether as a result of new information, future developments or otherwise.

**Optinose Investor Contact**

Jonathan Neely

[jonathan.neely@optinose.com](mailto:jonathan.neely@optinose.com)

267.521.0531

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## Optinose Announces Pricing of Public Offering of Common Stock

**YARDLEY, Pa., November 21, 2019** -- Optinose (NASDAQ:OPTN), a pharmaceutical company focused on patients treated by ear, nose and throat (ENT) and allergy specialists, today announced the pricing of an underwritten public offering of 5,500,000 shares of its common stock at a public offering price of \$9.75 per share, before underwriting discounts. The offering consists of 4,250,000 shares being sold by Optinose and 1,250,000 shares being sold by certain selling stockholders, resulting in aggregate net proceeds of approximately \$39.0 million to Optinose and approximately \$11.5 million to the selling stockholders, after deducting underwriting discounts and before offering expenses. In addition, Optinose and the selling stockholders have granted the underwriters an option for a period of 30 days to purchase up to an additional 825,000 shares at the public offering price, less the underwriting discount. The offering is expected to close on or about November 25, 2019, subject to the satisfaction of customary closing conditions.

Optinose intends to use the net proceeds of the offering for working capital and general corporate purposes. Optinose will not receive any proceeds from the sale of shares by the selling stockholders.

Jefferies, Cowen and Piper Jaffray are acting as the joint lead book-running managers for the offering. BMO Capital Markets is acting as book-running manager for the offering.

The securities described above are being offered by Optinose and the selling stockholders pursuant to a shelf registration statement on Form S-3 (No. 333-228122) previously filed with and declared effective by the Securities and Exchange Commission (SEC) on November 9, 2018.

The securities are being offered by means of a prospectus supplement and accompanying prospectus relating to the offering that form a part of the registration statement. A preliminary prospectus supplement relating to the offering was filed with the SEC on November 20, 2019 and is available on the SEC's website at <http://www.sec.gov>. The final prospectus supplement relating to and describing the terms of the offering will be filed with the SEC and also will be available on the SEC's website. Before investing in the offering, you should read each of the prospectus supplement and the accompanying prospectus relating to the offering in their entirety as well as the other documents that Optinose has filed with the SEC that are incorporated by reference in the prospectus supplement and the accompanying prospectus relating to the offering, which provide more information about OptiNose and the offering. A copy of the final prospectus may be obtained, when available, from: Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, or by telephone at 877-821-7388 or by email at [Prospectus\\_Department@Jefferies.com](mailto:Prospectus_Department@Jefferies.com); Cowen and Company, LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, Attention: Prospectus Department, email: [PostSaleManualRequests@broadridge.com](mailto:PostSaleManualRequests@broadridge.com), telephone: 1-833-297-2926; Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402, or by telephone at 800-747-3924 or by email at [prospectus@pjc.com](mailto:prospectus@pjc.com); or BMO Capital Markets Corp., Attention: Equity Syndicate Department, 3 Times Square, 25th Floor, New York, NY 10036, or by telephone at 800-414-3627 or by email at [bmo prospectus@bmo.com](mailto:bmo prospectus@bmo.com).

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of, these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification of these securities under the securities laws of any such state or jurisdiction.

### About Optinose

Optinose is a specialty pharmaceutical company focused on serving the needs of patients cared for by ear, nose and throat (ENT) and allergy specialists. Optinose has offices in the U.S., the U.K. and Norway.

**Cautionary Note on Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. All statements that are not historical facts are hereby identified as forward-looking statements for this purpose and include, among others, statements regarding the closing of the proposed offering and the expected proceeds and use of proceeds from the proposed offering. Forward-looking statements are based upon management's current expectations and assumptions and are subject to a number of risks, uncertainties and other factors that could cause actual results and events to differ materially and adversely from those indicated by such forward-looking statements including, among others: satisfaction of the customary closing conditions of the offering; delays in obtaining required stock exchange or other regulatory approvals; stock price volatility; the impact of general business and economic conditions; and the risks, uncertainties and other factors discussed under the caption "Item 1A. Risk Factors" and elsewhere in Optinose's most recent Form 10-K and Form 10-Q filings with the Securities and Exchange Commission - which are available at [www.sec.gov](http://www.sec.gov). As a result, you are cautioned not to place undue reliance on any forward-looking statements. Any forward-looking statements made in this press release speak only as of the date of this press release, and Optinose undertakes no obligation to update such forward-looking statements, whether as a result of new information, future developments or otherwise.

**Optinose Investor Contact**

Jonathan Neely

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