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

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): May 24, 2023**

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**Schrodinger, Inc.**

(Exact name of Registrant as Specified in Its Charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**001-39206**  
(Commission File Number)

**95-4284541**  
(I.R.S. Employer  
Identification No.)

**1540 Broadway, 24th Floor**  
**New York, NY**  
(Address of principal executive offices)

**10036**  
(Zip Code)

**Registrant's telephone number, including area code: (212) 295-5800**

**Not Applicable**

(Former Name or Former Address, if Changed Since Last Report)

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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:

- 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 \$0.01 per share	SDGR	The Nasdaq Stock Market LLC

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.

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

On May 24, 2023, Schrödinger, Inc., a Delaware corporation (the “Company”), entered into a Sales Agreement (the “Sales Agreement”) with SVB Securities LLC, as agent (“SVB Securities”), pursuant to which the Company may offer and sell shares of its common stock, \$0.01 par value per share, having an aggregate offering price of up to \$250,000,000 (the “Shares”) from time to time through SVB Securities. The Shares to be sold under the Sales Agreement, if any, may be issued and sold pursuant to the Company’s existing shelf Registration Statement on Form S-3ASR (File No. 333-253865), which became automatically effective upon filing on March 4, 2021 (the “Registration Statement”), a prospectus contained within the Registration Statement and a prospectus supplement, dated May 24, 2023, relating to the Shares that the Company has filed with the Securities and Exchange Commission.

Upon delivery of a placement notice and subject to the terms and conditions of the Sales Agreement, SVB Securities may sell the Shares by any method permitted that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended.

The Company or SVB Securities may suspend or terminate the offering of the Shares upon notice to the other party, subject to certain conditions. SVB Securities will act as sales agent using commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Global Select Market.

The Company has agreed to pay SVB Securities commissions for its services as agent of up to 3.0% of the aggregate gross proceeds from the sale of the Shares pursuant to the Sales Agreement. The Company has also agreed to provide SVB Securities with customary indemnification and contribution rights.

The foregoing description of the Sales Agreement is qualified in its entirety by reference to the full text of the Sales Agreement, a copy of which is filed as Exhibit 1.1 hereto and incorporated herein by reference.

Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Company, has issued a legal opinion relating to the Shares. A copy of such legal opinion, including the consent included therein, is attached as Exhibit 5.1 hereto.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy the Shares, nor shall there be any sale of the Shares in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities law of such state or jurisdiction.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits:

<b>Exhibit Number</b>	<b>Description</b>
1.1	<a href="#">Sales Agreement, dated as of May 24, 2023, by and between Schrödinger, Inc. and SVB Securities LLC.</a>
5.1	<a href="#">Opinion of Wilmer Cutler Pickering Hale and Dorr LLP.</a>
23.1	<a href="#">Consent of Wilmer Cutler Pickering Hale and Dorr LLP (contained in Exhibit 5.1 above).</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

**SIGNATURES**

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

**Schrödinger, Inc.**

Date: May 24, 2023

By: \_\_\_\_\_ /s/ Yvonne Tran  
Yvonne Tran  
Chief Legal Officer and Corporate Secretary

Execution Version

SCHRÖDINGER, INC.  
Shares of Common Stock  
(\$0.01 par value per share)

**SALES AGREEMENT**

May 24, 2023

SVB SECURITIES LLC  
1301 Avenue of the Americas, 12<sup>th</sup> Floor  
New York, New York 10019

Ladies and Gentlemen:

Schrödinger, Inc., a Delaware corporation (the “**Company**”), confirms its agreement (this “**Agreement**”) with SVB Securities LLC (the “**Agent**”), as follows:

1. **Issuance and Sale of Shares.** The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through the Agent up to \$250,000,000 of shares of common stock, \$0.01 par value per share, of the Company (the “**Common Stock**”), subject to the limitations set forth in Section 5(c) (the “**Placement Shares**”). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in this Section 1 on the aggregate gross sales price of Placement Shares that may be issued and sold under this Agreement from time to time shall be the sole responsibility of the Company, and that the Agent shall have no obligation in connection with such compliance. The issuance and sale of Placement Shares through the Agent will be effected pursuant to the Registration Statement (as defined below) filed by the Company with the Securities and Exchange Commission (the “**Commission**”) on March 4, 2021, which became automatically effective upon filing under Rule 462(e) of the Securities Act (as defined below), although nothing in this Agreement shall be construed as requiring the Company to issue any Placement Shares.

The Company has prepared and filed, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the “**Securities Act**”), with the Commission a registration statement on Form S-3ASR (File No. 333-253865), including a base prospectus (the “**Base Prospectus**”), relating to certain securities, including the Common Stock, to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the “**Exchange Act**”). The Company has prepared and filed a prospectus supplement to the Base Prospectus relating to the Placement Shares to be issued from time to time pursuant to this Agreement (the “**Prospectus Supplement**”). Upon request by the Agent, the Company will furnish to the Agent, for use by the Agent, copies of the Base Prospectus included as part of such registration statement at the time it became effective, as supplemented by the Prospectus Supplement. Except where the context otherwise requires, such registration statement, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or Rule 462(b) under the Securities Act, is herein called the “**Registration Statement**.” The Base Prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by any prospectus supplement, including the Prospectus Supplement, in the form in which such prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities

Act, together with any “issuer free writing prospectus” (as used herein, as defined in Rule 433 under the Securities Act (“**Rule 433**”)), relating to the Placement Shares that (i) is required to be filed with the Commission by the Company or (ii) is exempt from filing pursuant to Rule 433(d)(5)(i), in each case, in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g), is herein called the “**Prospectus**.”

Any reference herein to the Registration Statement, the Prospectus Supplement, the Prospectus or any issuer free writing prospectus shall be deemed to refer to and include the documents, if any, that are or are deemed to be incorporated by reference therein (the “**Incorporated Documents**”), including, unless the context otherwise requires, the documents, if any, filed as exhibits to such Incorporated Documents. Any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement, the Prospectus Supplement, the Prospectus or any issuer free writing prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act on or after the most-recent effective date of the Registration Statement, or the respective dates of the Prospectus Supplement, Prospectus or such issuer free writing prospectus, as the case may be, that is incorporated therein by reference. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to include the most recent copy filed with the Commission pursuant to its Electronic Data Gathering Analysis and Retrieval system or, if applicable, any successor system (collectively, “**EDGAR**”).

2. **Placements.** Each time that the Company wishes to issue and sell any Placement Shares through the Agent hereunder (each, a “**Placement**”), it will notify the Agent by email notice (or other method mutually agreed to in writing by the parties) (each such notice, a “**Placement Notice**”) containing the parameters in accordance with which it desires such Placement Shares to be sold, which at a minimum shall include the maximum number or amount of Placement Shares to be sold, the time period during which sales are requested to be made, any limitation on the number or amount of Placement Shares that may be sold in any one Trading Day (as defined in Section 3) and any minimum price below which sales may not be made, a form of which containing such minimum sales parameters is attached hereto as **Schedule 1**. The Placement Notice must originate from one of the individuals authorized to act on behalf of the Company and set forth on **Schedule 2** (with a copy to each of the other individuals from the Company listed on such **Schedule 2**), and shall be addressed to each of the recipients from the Agent set forth on **Schedule 2**, as such **Schedule 2** may be updated by either party from time to time by sending a written notice containing a revised **Schedule 2** to the other party in the manner provided in Section 12 (including by email correspondence to each of the individuals of the Company set forth on **Schedule 2**, so long as receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply). The Placement Notice shall be effective upon receipt by the Agent unless and until (i) in accordance with the notice requirements set forth in Section 4, the Agent declines to accept the terms contained therein for any reason, in its sole discretion, within two Trading Days of the date the Agent receives the Placement Notice, (ii) in accordance with the notice requirements set forth in Section 4, the Agent suspends sales under the Placement Notice for any reason in its sole discretion, (iii) the entire amount of the Placement Shares has been sold pursuant to this Agreement, (iv) in accordance with the notice requirements set forth in Section 4, the Company suspends sales under or terminates the Placement Notice for any reason in its sole discretion, (v) the Company issues a subsequent Placement Notice and explicitly indicates that its parameters supersede those contained in the earlier dated Placement Notice or (vi) this Agreement has been terminated pursuant to the provisions of Section 11. The amount of any discount, commission or other compensation to be paid by the Company to the Agent in connection with the sale of the Placement Shares effected through the Agent shall be calculated in accordance with the terms set forth in **Schedule 3**. It is expressly acknowledged and agreed that neither the Company nor the Agent will have any obligation whatsoever with respect to a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to the Agent and the Agent does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control with respect to the matters covered thereby.

3. Sale of Placement Shares by the Agent. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, including Section 5(c), upon the Agent's acceptance of the terms of a Placement Notice as provided in Section 2, and unless the sale of the Placement Shares described therein has been declined, suspended or otherwise terminated in accordance with the terms of this Agreement, the Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Global Select Market ("**Nasdaq**") to sell such Placement Shares up to the number or amount specified in, and otherwise in accordance with the terms of, such Placement Notice. The Agent will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Shares hereunder setting forth the number or amount of Placement Shares sold on such Trading Day, the volume-weighted average price of the Placement Shares sold and the Net Proceeds (as defined below) payable to the Company. Unless otherwise specified by the Company in a Placement Notice, the Agent may sell Placement Shares by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) of the Securities Act, including sales made directly on or through Nasdaq, on or through any other existing trading market for the Common Stock or to or through a market maker. If expressly authorized by the Company (including in a Placement Notice), the Agent may also sell Placement Shares in negotiated transactions. Notwithstanding the provisions of Section 6(ay), except as may be otherwise agreed by the Company and the Agent, the Agent shall not purchase Placement Shares on a principal basis pursuant to this Agreement unless the Company and the Agent enter into a separate written agreement setting forth the terms of such sale. The Company acknowledges and agrees that (i) there can be no assurance that the Agent will be successful in selling Placement Shares, (ii) the Agent will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Shares for any reason other than a failure by the Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of Nasdaq to sell such Placement Shares as required under this Agreement and (iii) the Agent shall be under no obligation to purchase Placement Shares on a principal basis pursuant to this Agreement unless the Company and the Agent enter into a separate written agreement setting forth the terms of such sale. For the purposes hereof, "**Trading Day**" means any day on which the Common Stock is purchased and sold on Nasdaq.

4. Suspension of Sales.

(a) The Company or the Agent may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by email correspondence to each of the individuals of the other party set forth on **Schedule 2**), suspend any sale of Placement Shares; *provided, however*, that such suspension shall not affect or impair either party's obligations with respect to any Placement Shares sold hereunder prior to the receipt of such notice. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other party unless notice is sent by one of the individuals named on **Schedule 2** hereto to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply). Receipt of such correspondence shall not be unnecessarily withheld or delayed.

(b) Notwithstanding any other provision of this Agreement, during any period in which the Company is, or could reasonably be deemed to be, in possession of material non-public information, the Company and the Agent agree that (i) no sale of Placement Shares will take place, (ii) the Company shall not request the sale of any Placement Shares and shall cancel any effective Placement Notices instructing the Agent to make any sales and (iii) the Agent shall not be obligated to sell or offer to sell any Placement Shares.

5. Settlement and Delivery of the Placement Shares.

(a) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the second Trading Day (or such earlier day as is industry practice or as is required for regular-way trading) following the date on which such sales are made (each, a “**Settlement Date**”). The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the “**Net Proceeds**”) will be equal to the aggregate gross sales price received by the Agent at which such Placement Shares were sold, after deduction of (i) the Agent’s commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, (ii) any other amounts due and payable by the Company to the Agent hereunder pursuant to Section 7(g) hereof and (iii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(b) Delivery of Placement Shares. On or before each Settlement Date, the Company will issue the Placement Shares being sold on such date and will, or will cause its transfer agent to, electronically transfer such Placement Shares by crediting the Agent’s or its designee’s account (provided the Agent shall have given the Company written notice of such designee prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System (“**DWAC**”) or by such other means of delivery as may be mutually agreed upon by the parties hereto, which in all cases shall be duly authorized, freely tradeable, transferable, registered shares of Common Stock in good deliverable form. On each Settlement Date, the Agent will deliver the related Net Proceeds in same day funds to an account designated by the Company on or prior to the Settlement Date. The Agent shall be responsible for providing DWAC instructions or other instructions for delivery by other means with regard to the transfer of the Placement Shares being sold. In addition to and in no way limiting the rights and obligations set forth in Section 9(a) hereto, the Company agrees that if the Company or its transfer agent (if applicable), defaults in its obligation to deliver duly authorized, freely tradeable, transferable, registered Placement Shares in good deliverable form by 2:30 P.M., New York City time, on a Settlement Date (other than as a result of a failure by the Agent to provide instructions for delivery and to accept delivery), the Company will (i) take all necessary action to cause the full amount of any Net Proceeds that were delivered to the Company’s account with respect to such settlement, together with any costs incurred by the Agent and/or its clearing firm in connection with recovering such Net Proceeds, to be immediately returned to the Agent or its clearing firm no later than 5:00 P.M., New York City time, on such Settlement Date, by wire transfer of immediately available funds to an account designated by the Agent or its clearing firm, and (ii) indemnify and hold the Agent and its clearing firm harmless against any loss, claim, damage, or reasonable, documented expense (including reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company or its transfer agent (if applicable) and (iii) pay to the Agent any commission, discount or other compensation to which it would otherwise have been entitled absent such default; provided, however that such commission, discount or other compensation shall be paid only once in the case of a default that is later settled in accordance with the first sentences of this Section 5(b). Certificates for the Placement Shares, if any, shall be in such denominations and registered in such names as the Agent may request in writing one Business Day (as defined below) before the applicable Settlement Date. Certificates for the Placement Shares, if any, will be made available by the Company for examination and packaging by the Agent in New York City not later than 12:00 P.M., New York City time, on the Business Day prior to the applicable Settlement Date.

(c) Limitations on Offering Size. Under no circumstances shall the Company cause or request the offer or sale of any Placement Shares if, after giving effect to the sale of such Placement Shares, the aggregate number or gross sales proceeds of Placement Shares sold pursuant to this Agreement would exceed the lesser of: (i) the number or dollar amount of shares of Common Stock registered pursuant to, and available for offer and sale under, the Registration Statement pursuant to which the offering of Placement Shares is being made, (ii) the number of authorized but unissued shares of Common Stock of the Company (less shares of Common Stock issuable upon exercise, conversion or exchange of any outstanding securities of the Company or otherwise reserved from the Company’s authorized capital stock), (iii) the number or dollar amount of shares of Common Stock permitted to be offered and sold by the Company under Form S-3 (including General Instruction I.B.6. thereof, if such

instruction is applicable), (iv) the number or dollar amount of shares of Common Stock that the Company's board of directors or a duly authorized committee thereof is authorized to issue and sell from time to time, or (v) the dollar amount of shares of Common Stock for which the Company has filed the Prospectus Supplement. Under no circumstances shall the Company cause or request the offer or sale of any Placement Shares pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company's board of directors or a duly authorized committee thereof. Notwithstanding anything to the contrary contained herein, the parties hereto acknowledge and agree that compliance with the limitations set forth in this Section 5(c) on the number or dollar amount of Placement Shares that may be issued and sold under this Agreement from time to time shall be the sole responsibility of the Company, and that the Agent shall have no obligation in connection with such compliance.

6. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the Agent that as of the date of this Agreement, and as of (i) each Representation Date (as defined in Section 7(m)) for which no waiver is in effect, (ii) each date on which a Placement Notice is given, (iii) the date and time of each sale of any Placement Shares pursuant to this Agreement and (iv) each Settlement Date (each such time or date referred to in clauses (i) through (iv), an "**Applicable Time**"):

(a) The Company and the transactions contemplated by this Agreement meet the requirements for and comply with the conditions for the use of Form S-3 (including General Instructions I.A and I.B.1.) under the Securities Act. The Registration Statement has been filed with the Commission and automatically became effective upon filing under Rule 462(e) of the Securities Act prior to the issuance of any Placement Notices by the Company. At the time the Registration Statement originally became effective and at the time the Company's most recent Annual Report on Form 10-K was filed with the Commission, the Company met the then-applicable requirements for use of Form S-3 (including General Instructions I.A and I.B.1.) under the Securities Act. The Registration Statement meets, and the offering and sale of Placement Shares as contemplated hereby comply with, the requirements of Rule 415(a)(1)(x) under the Securities Act. The Agent is named as the agent engaged by the Company in the section entitled "Plan of Distribution" in the Prospectus Supplement. The Company has not received, and has no notice from the Commission of, any notice pursuant to Rule 401(g)(1) under the Securities Act objecting to the use of the shelf registration statement form by the Company. No stop order of the Commission preventing or suspending the use of the Base Prospectus, the Prospectus Supplement or the Prospectus, or the effectiveness of the Registration Statement, has been issued, and no proceedings for such purpose are pending before or, to the knowledge of the Company, threatened by the Commission. At the time of the filing of the Prospectus Supplement, the Company will pay the required Commission filing fees relating to the Placement Shares that may be sold pursuant to this Agreement, in accordance with Rule 457(r) under the Securities Act. Copies of the Registration Statement, the Prospectus, any such amendments or supplements to any of the foregoing and all Incorporated Documents that were filed with the Commission on or prior to the date of this Agreement have been delivered, or are available through EDGAR, to the Agent and its counsel.

(b) Each of the Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective, at each deemed effective date with respect to the Agent pursuant to Rule 430B(f)(2) under the Securities Act and as of each Applicable Time, complied, complies and will comply in all material respects with the requirements of the Securities Act and did not, does 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, except that the representations and warranties set forth in this sentence do not apply to Agent's Information (as defined below). The Prospectus and any amendment or supplement thereto, when so filed with the Commission under Rule 424(b) under the Securities Act, complied, complies and as of each Applicable Time will comply in all material respects with the requirements of the Securities Act, and each Prospectus or issuer free writing prospectus (or any amendments or supplements to any of the foregoing) furnished to the Agent for use in connection with the offering of the Placement Shares was identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. Neither the Prospectus nor any amendment or supplement thereto, as of its date and as of each Applicable Time, included, includes or will include an untrue statement of a material fact or omitted, omits or will



omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that the representations and warranties set forth in this sentence do not apply to Agent's Information. Each Incorporated Document heretofore filed, when it was filed (or, if any amendment with respect to any such document was filed, when such amendment was filed), conformed in all material respects with the requirements of the Exchange Act and were filed on a timely basis with the Commission, and any further Incorporated Documents so filed and incorporated after the date of this Agreement, when so filed, will conform in all material respects with the requirements of the Exchange Act; no such Incorporated Document when it was filed (or, if an amendment with respect to any such document was filed, when such amendment was filed), contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and no such Incorporated Document, when it is filed, will contain an untrue statement of a material fact or will omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(c) (i) At the time of filing the Registration Statement and (ii) at the time of the execution of this Agreement (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an "ineligible issuer" (as defined in Rule 405), without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

(d) (i) At the time of filing the Registration Statement, (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Sections 13 or 15(d) of the Exchange Act or form of prospectus), and (iii) at each Settlement Date, the Company was or is (as the case may be) a "well-known seasoned issuer" as defined in Rule 405.

(e) Each issuer free writing prospectus, as of its issue date and as of each Applicable Time, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any Incorporated Document deemed to be a part thereof that has not been superseded or modified. Each issuer free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433 or that was prepared by or on behalf of or used by the Company complies or will comply in all material respects with the requirements of the Securities Act.

(f) The Company has not distributed and, prior to the later to occur of each Settlement Date and completion of the Agent's distribution of the Placement Shares under this Agreement, will not distribute any offering material in connection with the offering and sale of the Placement Shares other than the Registration Statement, the Prospectus or any Permitted Free Writing Prospectus (as defined below).

(g) The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and the Prospectus fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(h) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is listed on Nasdaq, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. The Company is in compliance with the current listing standards of Nasdaq. The Company has filed a Notification of Listing of Additional Shares with Nasdaq with respect to the Placement Shares.

(i) No person (as such term is defined in Rule 1-02 of Regulation S-X promulgated under the Securities Act) has the right to act as an underwriter or as a financial advisor to the Company in connection with the offer and sale of the Placement Shares hereunder, whether as a result of the filing or effectiveness of the Registration Statement or the sale of the Placement Shares as contemplated hereby or otherwise, except for the Agent. Except for the Agent, there is no broker, finder or other party that is entitled to receive from the Company or any of its subsidiaries any brokerage or finder's fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(j) The Company has been duly incorporated, is validly existing as a corporation in good standing under the laws of the State of Delaware, has the corporate power and authority to own or lease its property and to conduct its business as described in each of the Registration Statement and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect (as defined herein) on the Company and its subsidiaries, taken as a whole.

(k) Each subsidiary of the Company has been duly incorporated, organized or formed, is validly existing as a corporation or other business entity in good standing under the laws of the jurisdiction of its incorporation, organization or formation (to the extent that the concept of good standing is applicable in such jurisdiction), has the corporate or other business entity power and authority to own its property and to conduct its business as described in each of the Registration Statement and the Prospectus and is duly qualified to transact business and is in good standing (to the extent that the concept of good standing is applicable in such jurisdiction) in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing (to the extent that the concept of good standing is applicable in such jurisdiction) would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole; all of the issued shares of capital stock or other equity interests of each wholly-owned subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable (to the extent that such concepts are applicable in such jurisdiction) and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims. The Company does not own or control, directly or indirectly, any corporation, association or other entity, other than the subsidiaries listed on Exhibit 21.1 to the Company's most recent Annual Report on Form 10-K filed with the Commission.

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

(m) The Company has the authorized and outstanding capitalization as set forth in the Company's Annual Report on Form 10-K for the most recent fiscal year or, if later, the Company's Quarterly Report on Form 10-Q for the most recent fiscal quarter, as of the dates referred to therein (subject, in each case, to the issuance of Placement Shares under this Agreement, to the issuance of shares of Common Stock in exchange for shares of limited common stock, par value \$0.01 per share (the "**Limited Common Stock**"), of the Company, the issuance of shares of Limited Common Stock in exchange for shares of Common Stock, the issuance of shares of Common Stock upon exercise of share options or vesting of restricted stock units or pursuant to another equity award granted under an equity incentive plan of the Company described in the Registration Statement and the Prospectus, the issuance of shares of Common Stock upon exercise of warrants described in the Registration Statement and the Prospectus and the grant of options, restricted stock units or other equity awards under an equity incentive plan of the Company described in the Registration Statement and the Prospectus). The authorized capital stock of the Company conforms in all material respects as to legal matters to the description thereof contained under the heading "Description of Capital Stock" in the Registration Statement.

(n) The Placement Shares have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued, fully paid and nonassessable and will conform in all material respects to the description thereof contained in the Prospectus. The issuance and sale of the Placement Shares as

contemplated hereby shall not be subject to any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase the Placement Shares. When issued and delivered by the Company against payment therefor pursuant to this Agreement, the purchasers of the Placement Shares issued and sold hereunder will acquire good, marketable and valid title to such Placement Shares, free and clear of all pledges, liens, security interests, charges, claims or encumbrances. The issuance and sale of the Placement Shares as contemplated hereby will not cause any holder of any share capital, securities convertible into or exchangeable or exercisable for share capital or options, warrants or other rights to purchase share capital or any other securities of the Company to have any right to acquire any preferred shares of the Company. There are no restrictions upon the voting or transfer of the Common Stock under the Company's certificate of incorporation or bylaws or any agreement or other instrument to which the Company is a party or otherwise filed as an exhibit to the Registration Statement.

(o) The execution and delivery by the Company of, and the performance by the Company of its obligations under, this Agreement will not contravene any provision of (i) applicable law, (ii) the certificate of incorporation or by-laws of the Company, (iii) any agreement or other instrument binding upon the Company or any of its subsidiaries that is material to the Company and its subsidiaries, taken as a whole, or (iv) any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Company or any subsidiary, except in the case of clauses (i), (iii) and (iv), as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, or on the power and ability of the Company to perform its obligations under this Agreement. No consent, approval, authorization or order of, or qualification with, any governmental body or agency is required for the performance by the Company of its obligations under this Agreement, except such as have already been obtained or made or as may be required by the securities or Blue Sky laws of the various states or the rules and regulations of the Financial Industry Regulatory Authority ("**FINRA**") or Nasdaq in connection with the offer and sale of the Placement Shares.

(p) There has not occurred any material adverse change, or any development that would reasonably be expected to result in a prospective material adverse change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries (a "**Material Adverse Effect**"), taken as a whole, from that set forth in the Registration Statement and the Prospectus.

(q) There are no legal or governmental proceedings pending or, to the Company's knowledge, threatened to which the Company or any of its subsidiaries is a party or to which any of the properties of the Company or any of its subsidiaries is subject (i) other than proceedings accurately described in each of the Registration Statement and the Prospectus, and proceedings that would not, singly or in the aggregate, have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, or on the power or ability of the Company to perform its obligations under this Agreement or to consummate the transactions contemplated by each of the Registration Statement and the Prospectus or (ii) that are required to be described in the Registration Statement or the Prospectus and are not so described in all material respects; and there are no contracts or other documents to which the Company or its subsidiaries are subject or bound that are required to be described in the Registration Statement or the Prospectus or to be filed or incorporated by reference as exhibits to the Registration Statement that are not described in all material respects or filed or incorporated by reference as required.

(r) The Company is not, and immediately after giving effect to the offering and sale of the Placement Shares and the application of the proceeds thereof as described in each of the Registration Statement and the Prospectus will not be, required to register as an "investment company" as such term is defined in the Investment Company Act of 1940, as amended.

(s) The Company and its subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental

Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(t) There are no costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(u) There are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company or to require the Company to include such securities with the Placement Shares registered pursuant to the Registration Statement, except those contracts, agreements and understandings described in each of the Registration Statement and the Prospectus, all of which have been validly waived or complied with.

(v) (i) None of the Company or its subsidiaries or controlled affiliates, or any director, officer or employee thereof, or, to the Company's knowledge, any agent or representative of the Company or of any of its subsidiaries or controlled affiliates, has taken or will take any action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment, giving or receipt of money, property, gifts or anything else of value, directly or indirectly, to any government official (including any officer or employee of a government or government-owned or controlled entity or of 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) ("**Government Official**") in order to improperly influence official action, or to any person in violation of any applicable anti-corruption laws; (ii) the Company and its subsidiaries and controlled affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintained and will continue to maintain policies and procedures reasonably designed to promote and achieve compliance with such laws and with the representations and warranties contained herein; and (iii) neither the Company nor its subsidiaries will use, directly or indirectly, the proceeds of the offering in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any person in violation of any applicable anti-corruption laws.

(w) The operations of the Company and its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency having jurisdiction over the Company or its subsidiaries (collectively, the "**Anti-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 Anti-Money Laundering Laws is pending or, to the Company's knowledge, threatened.

(x) (i) None of the Company, any of its subsidiaries, or any director, officer, or employee thereof, or, to the Company's knowledge, any agent, affiliate or representative of the Company or any of its subsidiaries, is an individual or entity ("**Person**") that is, or is owned or controlled by one or more Persons that are:

(A) the subject of any sanctions administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, His Majesty's Treasury, or other relevant sanctions authority (collectively, "**Sanctions**"); or

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Crimea, Cuba, Iran, North Korea, Syria, the so-called Donetsk People's Republic and the so-called Luhansk People's Republic).

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

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

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

(iii) For the past five years, the Company and its subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(y) Subsequent to the respective dates as of which information is given in each of the Registration Statement and the Prospectus, (i) the Company and its subsidiaries, taken as a whole, have not incurred any material liability or obligation, direct or contingent, nor entered into any material transaction; (ii) the Company has not purchased any of its outstanding capital stock, nor declared, paid or otherwise made any dividend or distribution of any kind on its capital stock other than ordinary and customary dividends (other than from its employees or other service providers in connection with the termination of the service pursuant to plans or agreements, as applicable); and (iii) there has not been any material change in the capital stock, short-term debt or long-term debt of the Company and its subsidiaries, taken as a whole, except in each case as described in each of the Registration Statement and the Prospectus, respectively.

(z) The Company and its subsidiaries do not own any real property. The Company and its subsidiaries have good and marketable title to all personal property owned by them which is material to the business of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances and defects except such as are described in each of the Registration Statement and the Prospectus or such as do not materially affect the value of such property and do not interfere in any material respect with the use made and proposed to be made of such property by the Company and its subsidiaries; and any real property and buildings held under lease by the Company and its subsidiaries are held by them, as applicable, under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere in any material respect with the use made and proposed to be made of such property and buildings by the Company and its subsidiaries.

(aa) (i) The Company and its subsidiaries own or have a valid license to all patents, inventions, copyrights, know how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks and trade names (collectively, "**Intellectual Property Rights**") used in or reasonably necessary to the conduct of their businesses in the manner described in each of the Registration Statement and the Prospectus; (ii) the Intellectual Property Rights owned by the Company and its subsidiaries and, to the Company's knowledge, the Intellectual Property Rights licensed to the Company and its subsidiaries, are valid, subsisting and enforceable, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, scope or enforceability of any such Intellectual Property Rights; (iii) neither the Company nor any of its subsidiaries has received any notice alleging any infringement, misappropriation or other violation of Intellectual Property Rights which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole; (iv) to the Company's

knowledge, no third party is infringing, misappropriating or otherwise violating, or has infringed, misappropriated or otherwise violated, any Intellectual Property Rights owned by the Company that would have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole; (v) neither the Company nor any of its subsidiaries infringes, misappropriates or otherwise violates, or has infringed, misappropriated or otherwise violated, any Intellectual Property Rights of a third party, that would have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole; (vi) all employees or contractors engaged in the development of Intellectual Property Rights on behalf of the Company or any subsidiary of the Company have executed an invention assignment agreement whereby such employees or contractors presently assign all of their right, title and interest in and to such Intellectual Property Rights to the Company or the applicable subsidiary, and to the Company's knowledge no such agreement has been breached or violated in any material respect; and (vii) the Company and its subsidiaries use, and have used, commercially reasonable efforts to appropriately maintain all information intended to be maintained as a trade secret.

(ab) (i) The Company and its subsidiaries use and have used any and all software and other materials distributed under a "free," "open source," or similar licensing model (including but not limited to the MIT License, Apache License, GNU General Public License, GNU Lesser General Public License and GNU Affero General Public License) ("**Open Source Software**") in compliance with all license terms applicable to such Open Source Software, except where the failure to comply would not reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole; and (ii) neither the Company nor any of its subsidiaries uses or distributes or has used or distributed any Open Source Software in any manner that requires or has required any proprietary software code or other technology owned by the Company or any of its subsidiaries to be (1) disclosed or distributed in source code form, (2) licensed for the purpose of making derivative works or (3) redistributed at no charge, other than solely with respect to such Open Source Software, except as would not reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(ac) (i) The Company and each of its subsidiaries have complied and are presently in material compliance with all applicable internal and external privacy policies; contractual obligations; applicable industry standards; applicable laws, statutes, judgments, orders, rules and regulations of any court or arbitrator or other governmental or regulatory authority, including without limitation, HIPAA, the HITECH Act, and the European Union General Data Protection Regulation ("**GDPR**") (EU 2016/679), the California Consumer Privacy Act of 2018 ("**CCPA**"), California Privacy Rights Act ("**CPRA**"), and other similar state laws applicable to the Company, in each case, relating to the collection, use, transfer, import, export, storage, protection, disposal and disclosure by the Company or any of its subsidiaries of Personal Data or other household, sensitive, confidential or regulated data (collectively, "**Data Security Obligations**"), and such data, "**Data**"); (ii) the Company has not received any notification of or complaint regarding and is unaware of any other facts that, individually or in the aggregate, would reasonably indicate material non-compliance with any Data Security Obligation, including, but not limited to any such liability relating to any security or data privacy breaches suffered by the Company or its subsidiaries; and (iii) the Company is not a party to any pending or threatened action, suit, proceeding, settlement agreement, order, decree, or judgment by or before any court or governmental agency, authority or body, alleging non-compliance with any Data Security Obligation. "**Personal Data**" means (a) Protected Health Information as defined by HIPAA; (b) "personal data" as defined by GDPR; (c) "personal information" as defined by CCPA, and (d) any other information that is otherwise considered "personal information", "personally identifiable information", "personal data," or similar term, under applicable law; and (e) any other piece of information that identifies such natural person or household.

(ad) The Company and each of its subsidiaries have, at all times, taken reasonable technical, physical, and organizational measures necessary to protect the information technology systems and Data used in connection with the operation of the Company's and its subsidiaries' businesses. Without limiting the foregoing, the Company and its subsidiaries have used reasonable efforts to establish and maintain, and have established, maintained, implemented and complied with, reasonable information technology, information security, cyber security and data protection controls, policies and procedures, including oversight, access controls, encryption, technological and physical safeguards and business continuity/disaster recovery and security plans that are designed to protect against and prevent breach, destruction,

loss, unauthorized distribution, use, access, disablement, misappropriation or modification, or other compromise or misuse of or relating to any information technology system, Data, or Personal Data used in connection with the operation of the Company's and its subsidiaries' businesses that would, singly or in the aggregate, have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole ("**Breach**"). There has been no such Breach, and the Company and its subsidiaries have not been notified of and have no knowledge of any event or condition that would reasonably be expected to result in, any such Breach.

(ae) No material labor dispute with the employees of the Company or any of its subsidiaries exists, or, to the Company's knowledge, is imminent; and the Company is not aware of any existing, threatened or imminent labor disturbance by the employees of any of its principal suppliers, manufacturers or contractors that could, singly or in the aggregate, have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(af) The Company and each of its subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as, in the Company's reasonable judgment, are prudent and customary in the businesses in which they are engaged; neither the Company nor any of its subsidiaries has been refused any insurance coverage sought or applied for; and neither the Company nor any of its subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(ag) Any statistical and market-related data included in the Registration Statement 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 Company's knowledge, it does not require the consent of any third party for the use of any such data except as already obtained.

(ah) The Company has operated at all times and is currently in compliance with all applicable statutes, rules and regulations of the U.S. Food and Drug Administration (the "**FDA**") and applicable foreign regulatory authorities, including the European Medicines Agency and the UK Medicines & Healthcare products Regulatory Agency (collectively, the "**Regulatory Authorities**") except where failure to be in compliance would not reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole. For purposes of this Agreement, "**Health Care Laws**" means: (i) the Federal Food, Drug, and Cosmetic Act and the regulations promulgated thereunder; (ii) the Standards for Privacy of Individually Identifiable Health Information, the Security Standards, and the Standards for Electronic Transactions and Code Sets promulgated under the U.S. Health Insurance Portability and Accountability Act of 1996 ("**HIPAA**") (42 U.S.C. Section 1320d et seq.), the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the regulations promulgated thereunder and any state or non-U.S. counterpart thereof to which the Company is subject, the purpose of which is to protect the privacy of individuals or prescribers; (iii) licensure, quality, safety and accreditation requirements under applicable federal, state, local or foreign laws or regulatory bodies; and (iv) all other local, state, federal, national, supranational and foreign laws, relating to the regulation of the Company and the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product under development, manufactured or distributed by the Company.

(ai) (i) the studies, tests and preclinical and clinical trials conducted by or on behalf of or sponsored by the Company or in which the Company has participated that are described or referred to in the Registration Statement and the Prospectus were, and if still pending are, being conducted in all material respects in accordance with standard medical and experimental protocols, procedures and controls pursuant to accepted professional scientific research standards and procedures, and all applicable Health Care Laws, the rules and regulations of the Regulatory Authorities and current Good Clinical Practices and Good Laboratory Practices; (ii) the descriptions of the results of such studies and trials contained in the Registration Statement or the Prospectus are accurate in all material respects and fairly

present the data derived from such trials and studies; (iii) the Company has no knowledge of any other studies or trials conducted by the Company or on behalf of the Company not described in the Registration Statement and the Prospectus, the results of which are inconsistent with or call into question the results described or referred to in the Registration Statement and the Prospectus; and (iv) the Company has not received any written notices, correspondence or other communications from any Regulatory Authority requiring or threatening the termination, material modification or suspension of any studies or trials that are described in the Registration Statement and the Prospectus or the results of which are referred to in the Registration Statement and the Prospectus, and, to the Company's knowledge, there are no reasonable grounds for the same.

(aj) (i) Except as would not, individually or in the aggregate, have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, the Company has filed, obtained, maintained or submitted all 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 timely, complete, accurate and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); (ii) the Company has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or Regulatory Authority or other governmental entity alleging that the Company is in material violation of any Health Care Laws, including, without limitation, any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other written correspondence or notice from the FDA or any other Regulatory Authority or governmental entity, nor, to the Company's knowledge, is any such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action threatened; (iii) the Company is not a party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any Regulatory Authority or other governmental entity; and (iv) neither the Company nor any of its 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 Company's knowledge, is subject to an inquiry, investigation, proceeding or other similar action by a Regulatory Authority or other governmental entity that could reasonably be expected to result in debarment, suspension, or exclusion.

(ak) The Company and its subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct their respective businesses, including, without limitation, from the Regulatory Authorities and neither the Company nor any of its subsidiaries has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole.

(al) Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, (i) each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), that is sponsored, maintained, administered or contributed to by the Company has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) neither the Company nor any member of its "Controlled Group" (defined as any trade or business, whether or not incorporated, that would be regarded as a single employer with the Company under Section 414 of the Code) (x) has ever sponsored, maintained, contributed to or has had any obligation to contribute to, any employee benefit plan that is subject to Title IV of ERISA or any "multiemployer plan" as defined in Section 3(37) of ERISA or (y) has incurred, or reasonably expects to incur, any liability under Title IV of ERISA.

(am) The financial statements included or incorporated by reference in each of the Registration Statement and the Prospectus, together with the related notes thereto, comply as to form in all material respects with the applicable accounting requirements of the Securities Act and present fairly in all material respects the consolidated financial position of the Company and its consolidated subsidiaries as



of the dates shown and its results of operations, statements of stockholders' equity (deficit) and cash flows for the periods shown, and such financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("**U.S. GAAP**") applied on a consistent basis throughout the periods covered thereby except (i) the unaudited, interim financial statements, which are subject to normal year-end adjustments and do not contain footnotes as permitted by the applicable rules of the Commission, and (ii) as otherwise disclosed therein. No supporting schedules are required to be included or incorporated by reference in each of the Registration Statement or the Prospectus under the Securities Act and the rules and regulations of the Commission thereunder, except for such supporting schedules as have been included or incorporated by reference. The other financial information included in each of the Registration Statement and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby.

(an) There are no financial statements (historical or pro forma) that are required to be included in the Registration Statement or the Prospectus that are not included as required. All disclosures included in each of the Registration Statement and the Prospectus regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of Commission) comply in all material respects with Regulation G of the Exchange Act, and Item 10 of Regulation S-K of the Securities Act, to the extent applicable.

(ao) KPMG LLP, who have certified certain financial statements of the Company and its subsidiaries and delivered its report with respect to the audited consolidated financial statements, together with the notes thereto, filed with the Commission and incorporated by reference in each of the Registration Statement and the Prospectus, is an independent registered public accounting firm with respect to the Company within the meaning of the Securities Act and the applicable rules and regulations thereunder adopted by the Commission and the Public Company Accounting Oversight Board (United States).

(ap) Except as described in the Registration Statement or Prospectus, the Company and each of its subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in the eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and the Prospectus fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as described in the Registration Statement or Prospectus, since the end of the Company's most recent audited fiscal year, there has been (i) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (ii) 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.

(aq) The Company is in compliance, to the extent required, with all provisions of the Sarbanes-Oxley Act of 2002, as amended, and all rules and regulations promulgated thereunder applicable to the Company as of the date hereof.

(ar) The Company and each of its subsidiaries have filed all federal, state, local and foreign tax returns required to be filed through the date of this Agreement or have requested extensions thereof (except where the failure to file would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect) and have paid all taxes required to be paid thereon (except as currently being contested in good faith and for which reserves required by U.S. GAAP have been created in the financial statements of the Company, or for cases in which the failure to pay would not reasonably be expected to have a Material Adverse Effect), and no tax deficiency has been determined adversely to the Company or

any of its subsidiaries which, singly or in the aggregate, has had (nor does the Company nor any of its subsidiaries have any notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company or its subsidiaries and which could reasonably be expected to have) a Material Adverse Effect. The Company has made adequate charges, accruals and reserves on the books of the Company in respect of any federal, state, local and foreign tax returns for any periods not finally determined, except to the extent that such inadequacy would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company is not under audit by any governmental body or agency and has not received written notice of any pending or threatened audit, except to the extent that such audit would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(as) Neither the Company nor any of its subsidiaries has any securities rated by any “nationally recognized statistical rating organization,” as such term is defined in Section 3(a)(62) of the Exchange Act.

(at) The Company maintains disclosure controls and procedures that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company is made known to the Company’s principal executive officer and principal financial officer by others within the Company; except as described in the Registration Statement or Prospectus, such disclosure controls and procedures are effective at the reasonable assurance level; and the Company has carried out evaluations of the effectiveness of its disclosure controls and procedures as required by Rule 13a-15 of the Exchange Act.

(au) There is no statute, regulation, contract, agreement or other document required to be described in the Registration Statement or the Prospectus, or to be filed as an exhibit to the Registration Statement or any Incorporated Document which is not described or filed as required. The statements set forth or incorporated by reference in the Prospectus, insofar as they purport to constitute summaries of the terms of the statutes, regulations, contracts, agreements or other documents described and filed, constitute accurate summaries of the terms thereof in all material respects.

(av) Neither the Company nor any of its subsidiaries is in violation or default of (i) any provision of its certificate or articles of incorporation, charter, bylaws, articles of association, limited liability company agreement, certificate or agreement of limited or general partnership, or other similar organizational documents, as the case may be, of such entity, (ii) the terms of any indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which it is a party or bound or to which its property or assets is subject, or (iii) any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company, any of its subsidiaries or any of their respective properties or assets, as applicable, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, have a Material Adverse Effect.

(aw) There are no transfer taxes or other similar fees or charges under federal law, the laws of any state, any foreign law, or any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance by the Company or sale by the Company of the Placement Shares.

(ax) Neither the Company, nor any of its subsidiaries, nor to the knowledge of the Company, any of its or their respective directors, officers or controlling persons has taken, directly or indirectly, without giving effect to any actions taken by the Agent, (i) any action designed to or that might constitute or reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares or (ii) any action designed to or that might constitute or reasonably be expected to cause or result in a violation of Regulation M under the Exchange Act.

(ay) The Company acknowledges and agrees that the Agent has informed the Company that the Agent may, to the extent permitted under the Securities Act and the Exchange Act, purchase and sell shares of Common Stock for its own account while this Agreement is in effect; *provided*, that (i) no such purchase or sales shall take place while a Placement Notice is in effect (except to the extent the Agent may engage in sales of Placement Shares purchased or deemed purchased from the Company as a “riskless principal” or in a similar capacity) and (ii) the Company shall not be deemed to have authorized or consented to any such purchases or sales by the Agent, except as may be otherwise agreed by the Company and the Agent.

(az) The Company is not a party to any agreement with an agent or underwriter for any “at the market” or continuous equity transaction, other than this Agreement.

(ba) The Company is not required to register as a “broker” or “dealer” in accordance with the provisions of the Exchange Act and does not, directly or indirectly through one or more intermediaries, control or have any other association with (within the meaning of Article I of the By-laws of FINRA) any member firm of FINRA. No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers or shareholders of the Company, on the other hand, which is required by the rules of FINRA to be described in the Registration Statement and the Prospectus, which is not so described. All of the information (including, but not limited to, information regarding affiliations, security ownership and trading activity) provided to the Agent or its counsel by the Company in connection with the filing to be made and other supplemental information to be provided to FINRA pursuant to FINRA Rule 5110 in connection with the transactions contemplated by this Agreement is true, complete and correct. The Company meets the definition of the term “experienced issuer” specified in FINRA Rule 5110(j)(6) for purposes of the exemption from filing under FINRA Rule 5110(h)(1)(C), unless the Company has notified the Agent otherwise.

(bb) As of the close of trading on Nasdaq on May 24, 2023, the aggregate market value of the outstanding voting and non-voting common equity (as defined in Rule 405) of the Company held by persons other than affiliates of the Company (pursuant to Rule 144 of the Securities Act, those that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the Company) (the “**Non-Affiliate Shares**”), was at least \$75 million (calculated by multiplying (x) the price at which the common equity of the Company was last sold on Nasdaq on a date within 60 days of May 24, 2023 by (y) the number of Non-Affiliate Shares outstanding on a date within 60 days of May 24, 2023). The Company is not a shell company (as defined in Rule 405) and has not been a shell company for at least 12 calendar months previously.

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

(bd) Neither the Company nor, to the Company’s knowledge, any of its affiliates (within the meaning of Rule 144 under the Securities Act) has, prior to the date hereof, made any offer or sale of any securities which could reasonably be expected to be “integrated” (within the meaning of the Securities Act) with the offer and sale of the Placement Shares hereunder.

(be) 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 in the Registration Statement 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) as required, 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 a director or senior manager of the Company that was false or misleading.

(bf) There are no relationships, direct or indirect, or related party transactions involving the Company or any of its subsidiaries or any other person (including any director, officer, stockholder) required to be described in the Registration Statement or the Prospectus that have not been described as required.

Any certificate signed by any officer of the Company and delivered to the Agent or its counsel in connection with the offering of the Placement Shares shall be deemed a representation and warranty by the Company, as to matters covered thereby, to the Agent.

7. Covenants of the Company. The Company covenants and agrees with the Agent that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which the Prospectus relating to any Placement Shares is required to be delivered by the Agent under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act or a similar rule); (i) the Company will notify the Agent promptly of the time when any subsequent amendment to the Registration Statement, other than Incorporated Documents, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus, other than Incorporated Documents, has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information (in each case, insofar as it relates to the transactions contemplated hereby); (ii) the Company will prepare and file with the Commission, promptly upon the Agent's reasonable request, any amendments or supplements to the Registration Statement or Prospectus that, in the Agent's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by the Agent (provided, however, that the failure of the Agent to make such request shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy the Agent shall have with respect to the failure by the Company to make such filing (but without limiting the Agent's rights under Section 9 hereof) will be to cease making sales under this Agreement until such amendment or supplement is filed); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than Incorporated Documents, relating to the Placement Shares or a security convertible into or exchangeable or exercisable for the Placement Shares unless a copy thereof has been submitted to the Agent within a reasonable period of time before the filing and the Agent has not reasonably objected thereto (provided, however, that the failure of the Agent to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy the Agent shall have with respect to the Company's making such filing notwithstanding the Agent's objection (but without limiting the Agent's rights under Section 9 hereof) will be to cease making sales under this Agreement); and (iv) the Company will cause each amendment or supplement to the Prospectus, other than Incorporated Documents, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act and, in the case of any Incorporated Document, to be filed with the Commission as required pursuant to the Exchange Act, within the time period prescribed.

(b) Notice of Commission Stop Orders. The Company will advise the Agent, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued. The Company will advise the Agent promptly after it receives any request by the Commission for any amendments to the Registration Statement or any amendment or supplements to the Prospectus or for additional information related to the offering of the Placement Shares or for additional information related to the Registration Statement or the Prospectus.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which the Prospectus relating to the Placement Shares is required to be delivered by the Agent under the Securities Act with

respect to the offer and sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act or a similar rule), the Company will use its reasonable best efforts to comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and will use its reasonable best efforts to file on or before their respective due dates (taking into account any extensions available under the Exchange Act) all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If during such period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify the Agent to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance; provided, however, that the Company may delay the filing of any amendment or supplement if, in the judgement of the Company, it is in the best interest of the Company to do so. If the Company has omitted any information from the Registration Statement pursuant to Rule 430B under the Securities Act, it will use its reasonable best efforts to comply with the provisions thereof and make all requisite filings with the Commission pursuant to said Rule 430B and to notify the Agent promptly of all such filings if not available on EDGAR.

(d) Listing of Placement Shares. During any period in which the Prospectus relating to the Placement Shares is required to be delivered by the Agent under the Securities Act with respect to the offer and sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act or a similar rule), the Company will use its commercially reasonable efforts to cause the Placement Shares to be listed on Nasdaq. The Company will timely file with Nasdaq all material documents and notices required by Nasdaq of companies that have or will issue securities that are traded on Nasdaq.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to the Agent and its counsel (at the reasonable expense of the Company) copies of the Registration Statement, the Prospectus (including all Incorporated Documents) and all amendments and supplements to the Registration Statement or Prospectus that are filed with the Commission during any period in which the Prospectus relating to the Placement Shares is required to be delivered under the Securities Act (including all Incorporated Documents filed with the Commission during such period), in each case as soon as reasonably practicable and in such quantities as the Agent may from time to time reasonably request and, at the Agent's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; *provided, however*, that the Company shall not be required to furnish any document (other than the Prospectus) to the Agent to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders and to the Agent as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) of and Rule 158 under the Securities Act, which requirement shall be satisfied by the timely filing with the Commission of the Company's Annual Report on Form 10-K.

(g) Expenses. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated in accordance with the provisions of Section 11 hereunder, will pay all expenses incident to the performance of its obligations hereunder, including expenses relating to (i) the preparation, printing and filing of the Registration Statement and each amendment and supplement thereto, of the Prospectus and of each amendment and supplement thereto and of this Agreement and such other documents as may be required in connection with the offering, purchase, sale, issuance or delivery of the Placement Shares, (ii) the preparation, issuance, sale and delivery of the Placement Shares and any stamp, documentary or similar issue taxes due or payable in connection therewith, (iii) the qualification of the Placement Shares under securities laws in accordance with the

provisions of Section 7(w) of this Agreement, including filing fees (provided, however, that any fees or disbursements of counsel for the Agent in connection therewith shall be paid by the Agent except as set forth in clauses (vii) and (viii) below), (iv) the printing and delivery to the Agent and its counsel of copies of the Prospectus and any amendments or supplements thereto, and of this Agreement, (v) the fees and expenses incurred in connection with the listing or qualification of the Placement Shares for trading on Nasdaq, (vi) the filing fees and expenses, if any, owed to the Commission or FINRA and the fees and expenses of any transfer agent or registrar for the Shares, (vii) the fees and associated expenses of the Agent's outside legal counsel for filings with the FINRA Corporate Financing Department (excluding FINRA filing fees referred to in clause (vi) above and subject to the limitations in clause (viii) below), and (viii) the reasonable fees and disbursements of the Agent's outside legal counsel (A) in an amount not to exceed \$75,000 arising out of executing this Agreement and the Company's delivery of the initial certificate pursuant to Section 7(m), (B) in an amount not to exceed \$25,000 in connection with each Representation Date (as defined below) on which the Company files an annual report on Form 10-K and is required to provide a certificate pursuant to Section 7(m) and (C) in an amount not to exceed \$15,000 in connection with each Representation Date (as defined below) on which the Company files a quarterly report on Form 10-Q or is otherwise required to provide a certificate pursuant to Section 7(m).

(h) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

(i) Notice of Other Sales. Without the prior written consent of the Agent, the Company will not, directly or indirectly, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any shares of Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable or exercisable for shares of Common Stock, warrants or any rights to purchase or acquire shares of Common Stock during the period beginning on the third Trading Day immediately prior to the date on which any Placement Notice is delivered to Agent hereunder and ending on the second Trading Day immediately following the final Settlement Date with respect to Placement Shares sold pursuant to such Placement Notice (or, if the Placement Notice has been terminated or suspended prior to the sale of all Placement Shares covered by a Placement Notice, the date of such suspension or termination); and will not directly or indirectly in any other "at the market offering" or continuous equity transaction offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any shares of Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable or exercisable for shares of Common Stock, warrants or any rights to purchase or acquire, shares of Common Stock prior to the termination of this Agreement; *provided, however*, that such restrictions will not be required in connection with the Company's issuance or sale of (i) shares of Common Stock, options to purchase shares of Common Stock, or other securities under the Company's equity incentive plans, or shares of Common Stock issuable upon the exercise of options or other securities or vesting of other securities, pursuant to any employee or director stock option or benefits plan, stock ownership plan, dividend reinvestment plan (but not shares of Common Stock subject to a waiver to exceed plan limits in its dividend reinvestment plan) of the Company whether now in effect or hereafter implemented, (ii) shares of Common Stock or shares of Limited Common Stock issuable upon the exchange, conversion or redemption of securities or the exercise or vesting of warrants, options or other rights in effect or outstanding, and disclosed in filings by the Company available on EDGAR or otherwise in writing to the Agent and (iii) shares of Common Stock or securities convertible into or exchangeable for shares of Common Stock as consideration for mergers, acquisitions, other business combinations, collaborations, joint ventures, licensing agreements, strategic alliances and other bona fide agreements with third parties occurring after the date of this Agreement which are not issued for capital raising purposes. Notwithstanding the foregoing provisions, nothing herein shall be construed to restrict the Company's ability, or require the Company to provide notice to the Agent, to file a registration statement under the Securities Act.

(j) Change of Circumstances. The Company will, at any time during a fiscal quarter in which the Company intends to tender a Placement Notice or sell Placement Shares, advise the Agent promptly after it shall have received notice or obtained knowledge of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided or required to be provided to the Agent pursuant to this Agreement.

(k) Due Diligence Cooperation. During the term of this Agreement, the Company will cooperate with any reasonable due diligence review conducted by the Agent, its affiliates agents and counsel from time to time in connection with the transactions contemplated hereby, including providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices, as the Agent may reasonably request.

(l) Required Filings Relating to Placement of Placement Shares. The Company agrees that on or prior to such dates as the Securities Act shall require with respect to the Placement Shares, the Company will (i) file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b) under the Securities Act, which prospectus supplement will set forth, within the relevant period, the number or amount of Placement Shares sold through the Agent, the Net Proceeds to the Company and the compensation payable by the Company to the Agent with respect to such Placement Shares, and (ii) deliver such number of copies of each such prospectus supplement to each exchange or market on which such sales were effected as may be required by the rules or regulations of such exchange or market; *provided*, that, unless a prospectus supplement containing such information is required to be filed under the Securities Act, the requirement of this Section 7(l) may be satisfied by Company's inclusion in the Company's Form 10-K or Form 10-Q, as applicable, of the number or amount of Placement Shares sold through the Agent, the Net Proceeds to the Company and the compensation payable by the Company to the Agent with respect to such Placement Shares during the relevant period.

(m) Representation Dates; Certificate. On or prior to the date on which the Company first delivers a Placement Notice pursuant to this agreement (the "**First Placement Notice Date**") and each time the Company:

(i) amends or supplements the Registration Statement or the Prospectus relating to the Placement Shares (other than a prospectus supplement filed in accordance with Section 7(l) of this Agreement) by means of a post-effective amendment, sticker or supplement but not by means of incorporation of document(s) by reference into the Registration Statement or the Prospectus relating to the Placement Shares;

(ii) files an annual report on Form 10-K under the Exchange Act (including any Form 10-K/A containing amended financial information or a material amendment to the previously filed Form 10-K);

(iii) files a quarterly report on Form 10-Q under the Exchange Act; or

(iv) files a current report on Form 8-K containing amended financial information (other than an earnings release that is "furnished" pursuant to Item 2.02 or Item 7.01 of Form 8-K) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a "**Representation Date**"),

the Company shall furnish the Agent (but in the case of clause (iv) above only if (1) a Placement Notice is pending or in effect and (2) the Agent requests such certificate within three Business Days after the filing of such Form 8-K with the Commission) with a certificate, in the form attached hereto as **Exhibit 7(m)** (modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented), within two Trading Days of any Representation Date. The requirement to provide a certificate under this Section 7(m) shall be waived for any Representation Date occurring at a time at which no Placement Notice is pending or in effect, which waiver shall continue until the earlier to occur of (1) the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Representation Date) and (2) the next occurring Representation Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Representation Date on which the Company relied on the waiver referred to in the previous sentence and did not provide the Agent with a certificate under this Section 7(m), then before the Company delivers a Placement Notice or the Agent sells any Placement Shares pursuant thereto, the Company shall provide the Agent with a certificate, in the form attached hereto as **Exhibit 7(m)**, dated the date of such Placement Notice.

Within two Trading Days of each Representation Date, the Company shall have furnished to the Agent such further information, certificates and documents as the Agent may reasonably request.

(n) Legal Opinions. On or prior to the First Placement Notice Date and on or prior to any date on which the Company is obligated to deliver a certificate pursuant to Section 7(m) for which no waiver is applicable, the Company shall cause to be furnished to the Agent the written opinion and negative assurance letter of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Company, or such other counsel satisfactory to the Agent (“**Company Counsel**”), in form and substance satisfactory to the Agent and its counsel, dated the date that the opinion and negative assurance letter are required to be delivered, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented; *provided, however*, that in lieu of such opinion and negative assurance letter for subsequent Representation Dates, Company Counsel may furnish the Agent with a letter to the effect that the Agent may rely on a prior opinion or negative assurance letter delivered by such counsel under this Section 7(n) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion or negative assurance letter shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date). Notwithstanding the foregoing, the Company shall not be required to furnish more than one opinion of such counsel per each annual report on Form 10-K and each quarterly report on Form 10-Q filed by the Company.

(o) Reserved.

(p) Comfort Letter. On or prior to the First Placement Notice Date and on or prior to any date on which the Company is obligated to deliver a certificate pursuant to Section 7(m) for which no waiver is applicable, the Company shall cause its independent registered public accounting firm (and any other independent accountants whose report is included in the Registration Statement or the Prospectus) to furnish the Agent letters (the “**Comfort Letters**”), dated the date the Comfort Letter is delivered, which shall meet the requirements set forth in this Section 7(p); *provided*, that if requested by the Agent, the Company shall cause a Comfort Letter to be furnished to the Agent within 10 Trading Days of the occurrence of any material transaction or event that necessitates the filing of additional, pro forma, amended or revised financial statements (including any restatement of previously issued financial statements). Each Comfort Letter shall be in form and substance satisfactory to the Agent and each Comfort Letter from the Company’s independent registered public accounting firm shall (i) confirm that they are an independent registered public accounting firm within the meaning of the Securities Act and the PCAOB, (ii) state, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants’ “comfort letters” to underwriters in connection with registered public offerings (the first such letter, the “**Initial Comfort Letter**”) and (iii) update the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(q) Market Activities. The Company will not, directly or indirectly, and will cause its officers, directors and subsidiaries not to (i) take any action designed to cause or result in, or that constitutes or would reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of shares of Common Stock or (ii) sell, bid for, or purchase shares of Common Stock in violation of Regulation M, or pay anyone any compensation for soliciting purchases of the Placement Shares other than the Agent; *provided, however*, that the Company may bid for and purchase shares of Common Stock in accordance with Rule 10b-18 under the Exchange Act.

(r) Reserved.

(s) Compliance with Laws. The Company and each of its subsidiaries shall maintain, or cause to be maintained, all material environmental certificates, authorizations or permits required by federal, state and local law in order to conduct their businesses as described in the Prospectus (collectively, “**Permits**”), and the Company and each of its Subsidiaries shall conduct their businesses, or cause their businesses to be conducted, in substantial compliance with such Permits and with applicable



Environmental Laws, except where the failure to maintain or be in compliance with such Permits could not reasonably be expected to result in a Material Adverse Effect.

(t) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor any of its subsidiaries will be or become, at any time prior to the termination of this Agreement, an “investment company,” as such term is defined in the Investment Company Act.

(u) Securities Act and Exchange Act. The Company will use its reasonable best efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the sales of, or dealings in, the Placement Shares as contemplated by the provisions hereof and the Prospectus.

(v) No Offer to Sell. Other than a free writing prospectus (as defined in Rule 405 under the Securities Act) approved in advance by the Company and the Agent, neither the Agent nor the Company (including its agents and representatives, other than the Agent in its capacity as agent) will make, use, prepare, authorize, approve or refer to any written communication that constitutes a “free writing prospectus” (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy Placement Shares hereunder.

(w) Blue Sky and Other Qualifications. The Company will use its commercially reasonable efforts, in cooperation with the Agent, to qualify the Placement Shares for offering and sale, or to obtain an exemption for the Placement Shares to be offered and sold, under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Agent may reasonably designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Placement Shares (but in no event for less than one year from the date of this Agreement); *provided, however*, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject. In each jurisdiction in which the Placement Shares have been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Placement Shares (but in no event for less than one year from the date of this Agreement).

(x) Sarbanes-Oxley Act. The Company will maintain and keep accurate books and records reflecting its assets and maintain internal accounting controls in a manner designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and including those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the Company’s financial statements in accordance with GAAP, (iii) that receipts and expenditures of the Company are being made only in accordance with management’s and the Company’s directors’ authorization, and (iv) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company’s assets that could have a material effect on its financial statements. The Company will maintain such controls and other procedures, including, without limitation, those required by Sections 302 and 906 of the Sarbanes-Oxley Act, and the applicable regulations thereunder that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, including, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure and to ensure that material information relating to

the Company is made known to it by others within the Company, particularly during the period in which such periodic reports are being prepared.

(y) Reserved.

(z) Reserved.

(aa) General Instruction I.B.6. of Form S-3. If, from and after the date of this Agreement, the Company is no longer eligible to use Form S-3 (including pursuant to General Instruction I.B.6.) at the time it files with the Commission an annual report on Form 10-K or any post-effective amendment to the Registration Statement, then it shall promptly notify the Agent and, within two Business Days after the date of filing of such annual report on Form 10-K or amendment to the Registration Statement, the Company shall file a new prospectus supplement with the Commission reflecting the number of shares of Common Stock available to be offered and sold by the Company under this Agreement pursuant to General Instruction I.B.6. of Form S-3; *provided, however*, that the Company may delay the filing of any such prospectus supplement as long as no Placement Notice is in effect or pending. Until such time as the Company shall have filed such new prospectus supplement, the Company shall not notify the Agent to resume the offering of Placement Shares.

(ab) Tax Indemnity. The Company will indemnify and hold harmless the Agent against any documentary, stamp or similar issue tax, including any interest and penalties, on the issue and sale of the Placement Shares.

(ac) Transfer Agent. The Company has engaged and will maintain, at its sole expense, a transfer agent and registrar for the Common Stock.

8. Conditions to the Agent's Obligations. The obligations of the Agent hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein, to the due performance by the Company of its obligations hereunder, to the completion by the Agent of a due diligence review satisfactory to the Agent in its reasonable judgment, and to the continuing satisfaction (or waiver by the Agent in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Registration Statement shall be effective and shall be available for all offers and sales of Placement Shares (i) that have been issued pursuant to all prior Placement Notices and (ii) that will be issued pursuant to any Placement Notice.

(b) Prospectus Supplement. The Company shall have filed with the Commission the Prospectus Supplement relating to the Placement Shares pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second Business Day following the date of this Agreement.

(c) No Material Notices. None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its subsidiaries of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company or any of its subsidiaries of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material Incorporated Document untrue in any material respect or that requires the making of any changes in the Registration Statement, the Prospectus or Incorporated Documents so that, in the case of the Registration Statement, it will 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 not misleading and, in the case of the Prospectus, so that it will 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 light of the circumstances under which they were made, not misleading.

(d) No Misstatement or Material Omission. The Agent shall not have advised the Company that the Registration Statement or Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in the Agent's opinion is material, or omits to state a fact that in the Agent's opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(e) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any material adverse change, on a consolidated basis, in the authorized capital stock of the Company or any Material Adverse Effect or any development that could reasonably be expected to result in a Material Adverse Effect, or any downgrading in or withdrawal of the rating assigned to any of the Company's securities (other than asset backed securities), if any, by any rating organization or a public announcement by any rating organization that it has under surveillance or review its rating of any of the Company's securities (other than asset backed securities), if any, the effect of which, in the judgment of the Agent (without relieving the Company of any obligation or liability it may otherwise have), is so material as to make it impracticable or inadvisable to proceed with the offering of the Placement Shares on the terms and in the manner contemplated in the Prospectus.

(f) Company Counsel Legal Opinions. The Agent shall have received the opinions and negative assurance letters, as applicable, of Company Counsel required to be delivered pursuant to Section 7(n) on or before the date on which such delivery of such opinions and negative assurance letters are required pursuant to Section 7(n).

(g) Agent's Counsel Legal Opinion. The Agent shall have received from Cooley LLP, counsel for the Agent, such opinion or opinions, on or before the date on which the delivery of the Company Counsel legal opinion is required pursuant to Section 7(n), with respect to such matters as the Agent may reasonably require, and the Company shall have furnished to such counsel such documents as they may request to enable them to pass upon such matters.

(h) Comfort Letter. The Agent shall have received the Comfort Letter required to be delivered pursuant to Section 7(p) on or before the date on which such delivery of such Comfort Letter is required pursuant to Section 7(p).

(i) Representation Certificate. The Agent shall have received the certificate required to be delivered pursuant to Section 7(m) on or before the date on which delivery of such certificate is required pursuant to Section 7(m).

(j) Secretary's Certificate. On or prior to the First Placement Notice Date, the Agent shall have received a certificate, signed on behalf of the Company by the Secretary of the Company and attested to by an executive officer of the Company, dated as of such date and in form and substance satisfactory to the Agent and its counsel, certifying as to (i) the amended and restated certificate of incorporation of the Company, (ii) the amended and restated bylaws of the Company, (iii) the resolutions of the board of directors of the Company or duly authorized committee thereof authorizing the execution, delivery and performance of this Agreement and the issuance and sale of the Placement Shares and (iv) the incumbency of the officers of the Company duly authorized to execute this Agreement and the other documents contemplated by this Agreement (including each of the officers set forth on Schedule 2).

(k) No Suspension. The Common Stock shall be duly listed, and admitted and authorized for trading, subject to official notice of issuance, on Nasdaq. Trading in the Common Stock shall not have been suspended on, and the Common Stock shall not have been delisted from, Nasdaq.

(l) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(m), the Company shall have furnished to the Agent such appropriate further information, opinions, certificates, letters and other documents as the Agent may have reasonably requested. All such information, opinions, certificates, letters and other documents shall have been in compliance with the provisions hereof.

(m) Securities Act Filings Made. All filings with the Commission required by Rule 424(b) or Rule 433 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424(b) (without reliance on Rule 424(b)(8) of the Securities Act) or Rule 433, as applicable.

(n) Approval for Listing. Either (i) the Placement Shares shall have been approved for listing on Nasdaq, subject only to notice of issuance, or (ii) the Company shall have filed an application for listing of the Placement Shares on Nasdaq at, or prior to, the First Placement Notice Date and Nasdaq shall not have provided any objections thereto.

(o) FINRA. FINRA shall have raised no objection to the terms of the offering contemplated hereby and the amount of compensation allowable or payable to the Agent as described in the Prospectus.

(p) No Termination Event. There shall not have occurred any event that would permit the Agent to terminate this Agreement pursuant to Section 11(a).

## 9. Indemnification and Contribution.

(a) Company Indemnification. The Company agrees to indemnify and hold harmless the Agent, its affiliates and their respective partners, members, directors, officers, employees and agents, and each person, if any, who (i) controls the Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act or (ii) is controlled by or is under common control with the Agent, in each case from and against any and all losses, claims, liabilities, expenses and damages (including any and all investigative, legal and other documented expenses reasonably incurred in connection with, and any and all amounts paid in settlement of (in accordance with this Section 9), any action, suit, investigation or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party (including any governmental or self-regulatory authority, or otherwise, or any claim asserted or threatened), as and when incurred, to which the Agent, or any such other person may become subject under the Securities Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based, directly or indirectly, on (x) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or the Prospectus (or any amendment or supplement to the Registration Statement or the Prospectus) or in any free writing prospectus, or (y) the omission or alleged omission to state in any such document a material fact required to be stated therein or necessary to make the statements therein (solely with respect to the Prospectus, in light of the circumstances under which they were made) not misleading; *provided, however*, that this indemnity agreement shall not apply to the extent that such loss, claim, liability, expense or damage arises from the sale of the Placement Shares pursuant to this Agreement and is caused, directly or indirectly, by an untrue statement or omission, or alleged untrue statement or omission, made in reliance upon and in conformity with the Agent's Information. This indemnity agreement will be in addition to any liability that the Company might otherwise have.

(b) Agent Indemnification. The Agent agrees to indemnify and hold harmless the Company and its directors and each officer of the Company who signed the Registration Statement, and each person, if any, who (i) controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act or (ii) is controlled by or is under common control with the Company against any and all losses, claims, liabilities, expenses and damages described in the indemnity contained in Section 9(a), as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendments thereto) or the Prospectus (or any amendment or supplement thereto) or in any free writing prospectus in reliance upon

and in conformity with the Agent's Information. This indemnity agreement will be in addition to any liability that the Agent might otherwise have.

(c) **Procedure.** Any party that proposes to assert the right to be indemnified under this Section 9 will, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 9, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from (i) any liability that it might have to any indemnified party otherwise than under this Section 9 and (ii) any liability that it may have to any indemnified party under the foregoing provision of this Section 9 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any other legal expenses except as provided below and except for the reasonable and documented costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (4) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable and documented fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable and documented fees, disbursements and other charges of more than one separate firm (plus local counsel) admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party promptly after the indemnifying party receives a written invoice relating to such fees, disbursements and other charges in reasonable detail. An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 9, unless such settlement, compromise or consent (1) includes an unconditional release of each indemnified party, in form and substance reasonably satisfactory to such indemnified party, from all liability arising out of such claim, action or proceeding and (2) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) **Settlement Without Consent if Failure to Reimburse.** If an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for reasonable and documented fees and expenses of counsel for which it is entitled to be reimbursed under this Section 9, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 9(a) effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(e) Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 9 is applicable in accordance with its terms but for any reason is held to be unavailable or insufficient from the Company or the Agent, the Company and the Agent will contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit, investigation or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Agent, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and the Agent may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Agent on the other hand. The relative benefits received by the Company on the one hand and the Agent on the other hand shall be deemed to be in the same proportion as the total Net Proceeds from the sale of the Placement Shares (before deducting expenses) received by the Company bear to the total compensation received by the Agent from the sale of Placement Shares on behalf of the Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Agent, on the other hand, with respect to the statements or omission that resulted in such loss, claim, liability, expense or damage, or action, suit, investigation or proceeding in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Agent, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Agent agree that it would not be just and equitable if contributions pursuant to this Section 9(e) were to be determined by *pro rata* allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense or damage, or action, suit, investigation or proceeding in respect thereof, referred to above in this Section 9(e) shall be deemed to include, for the purpose of this Section 9(e), any legal or other documented expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action, suit, investigation, proceeding or claim to the extent consistent with this Section 9. Notwithstanding the foregoing provisions of this Section 9(e), the Agent shall not be required to contribute any amount in excess of the commissions received by it under this Agreement and no person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 9(e), any person who controls a party to this Agreement within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, any affiliates of a party, any partners, members, directors, officers, employees and agents of a party and each person that is controlled by or under common control with a party will have the same rights to contribution as that party, and each officer and director of the Company who signed the Registration Statement will have the same rights to contribution as the Company, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 9(e), will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 9(e) except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of Section 9(c) hereof or pursuant to Section 9(d) hereof, no party will be liable for contribution with respect to any action or claim settled without its written consent if such consent is required pursuant to Section 9(c) hereof.

10. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 9 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto shall survive, as of their respective dates, regardless of (i) any investigation made by or on behalf of the Agent, any controlling persons, or the

Company (or any of their respective officers, directors, employees or controlling persons), (ii) delivery and acceptance of the Placement Shares and payment therefor or (iii) any termination of this Agreement.

11. Termination.

(a) The Agent shall have the right, by giving notice as hereinafter specified, at any time to terminate this Agreement if (i) any Material Adverse Effect, or any development that would reasonably be expected to result in a Material Adverse Effect, has occurred that, in the judgment of the Agent, may materially impair the ability of the Agent to sell the Placement Shares hereunder, (ii) the Company shall have failed, refused or been unable to perform any agreement on its part to be performed hereunder; *provided, however*, in the case of any failure of the Company to deliver (or cause another person to deliver) any certification, opinion or letter required under Section 7(m), Section 7(n), or Section 7(p), the Agent's right to terminate shall not arise unless such failure to deliver (or cause to be delivered) continues for more than 15 calendar days from the date such delivery was required, (iii) any other condition of the Agent's obligations hereunder is not fulfilled, (iv) any suspension or limitation of trading in the Placement Shares or in securities generally on Nasdaq shall have occurred, (v) a general banking moratorium shall have been declared by any of United States federal or New York authorities, or (vi) 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 that, in the judgment of the Agent, may materially impair the ability of the Agent to sell the Placement Shares hereunder or to enforce contracts for the sale of securities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 11(f), Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination. If the Agent elects to terminate this Agreement as provided in this Section 11(a), the Agent shall provide the required notice as specified in Section 12.

(b) The Company shall have the right, by giving 5 days' prior notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 11(f), Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(c) The Agent shall have the right, by giving 5 days' prior notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 11(f), Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 11, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Shares through the Agent on the terms and subject to the conditions set forth herein; *provided* that the provisions of Section 7(g), Section 9, Section 10, Section 11(f), Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(e) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 11(a), (b), (c), or (d) above or otherwise by mutual agreement of the parties; *provided, however*, that any such termination by mutual agreement shall in all cases be deemed to provide that Section 7(g), Section 9, Section 10, Section 11(f), Section 16 and Section 17 shall remain in full force and effect.

(f) Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided, however*, that such termination shall not be effective until the close of business on the date of receipt of such notice by the Agent or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares shall settle in accordance with the provisions of this Agreement. Upon termination of this Agreement, the

Company shall not be required to pay to the Agent any discount or commission with respect to any Placement Shares not otherwise sold by the Agent under this Agreement; *provided, however*, that the Company shall remain obligated to reimburse the Agent's expenses pursuant to Section 7(g).

12. **Notices.** All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified in this Agreement, and if sent to the Agent, shall be delivered to:

SVB Securities LLC  
1301 Avenue of the Americas, 12<sup>th</sup> Floor  
New York, New York 10019  
Attention: Peter M. Fry  
E-mail: [\*\*]

with a copy (which shall not constitute notice) to:

SVB Securities LLC  
1301 Avenue of the Americas, 12<sup>th</sup> Floor  
New York, New York 10019  
Attention: Stuart R. Nayman, Esq.  
E-mail: [\*\*]

and if to the Company, shall be delivered to:

Schrödinger, Inc.  
1540 Broadway, 24<sup>th</sup> Floor  
New York, New York 10036  
Attention: Chief Legal Officer  
E-mail: [\*\*]

with copies (which shall not constitute notice) to:

Wilmer Cutler Pickering Hale and Dorr LLP  
60 State Street  
Boston, Massachusetts 02109  
Attention: Cynthia T. Mazareas  
E-mail: [cynthia.mazareas@wilmerhale.com](mailto:cynthia.mazareas@wilmerhale.com)

Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally on or before 4:30 P.M., New York City time, on a Business Day, or, if such day is not a Business Day, on the next succeeding Business Day, (ii) by Electronic Notice as set forth in the next paragraph, (iii) on the next Business Day after timely delivery to a nationally-recognized overnight courier or (iv) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid). For purposes of this Agreement, "**Business Day**" shall mean any day on which the Nasdaq and commercial banks in the City of New York are open for business.

An electronic communication ("**Electronic Notice**") shall be deemed written notice for purposes of this Section 12 if sent to the electronic mail address specified by the receiving party in Section 12. Electronic Notice shall be deemed received at the time the party sending Electronic Notice receives actual acknowledgment of receipt from the person to whom the notice is sent, other than via auto-reply. Any party receiving Electronic Notice may request and shall be entitled to receive the notice on paper, in a nonelectronic form ("**Nonelectronic Notice**"), which shall be sent to the requesting party within 5 days of receipt of the written request for Nonelectronic Notice.

13. **Successors and Assigns.** This Agreement shall inure to the benefit of and be binding upon the Company and the Agent and their respective successors and the affiliates, controlling persons, officers, directors and other persons referred to in Section 9 hereof. References to any of the parties



contained in this Agreement shall be deemed to include the successors and permitted assigns of each such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto, the persons referred to in the preceding sentence and their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; *provided, however*, that the Agent may assign its rights and obligations hereunder to an affiliate of the Agent without obtaining the Company's consent, so long as such affiliate is a registered broker-dealer.

14. Adjustments for Share Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement shall be adjusted to take into account any share split, share dividend or similar event effected with respect to the Common Stock.

15. Entire Agreement; Amendment; Severability; Waiver. This Agreement (including all schedules (as amended pursuant to this Agreement) and exhibits attached hereto and Placement Notices issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and the Agent; *provided, however*, that **Schedule 2** of this Agreement may be amended by either party from time to time by sending a notice containing a revised **Schedule 2** to the other party in the manner provided in Section 12 and, upon such amendment, all references herein to **Schedule 2** shall automatically be deemed to refer to such amended **Schedule 2**. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement. No implied waiver by a party shall arise in the absence of a waiver in writing signed by such party. No failure or delay in exercising any right, power, or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power, or privilege hereunder.

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

17. Consent to Jurisdiction. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection with any of the transactions contemplated hereby, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum, or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy (certified or registered mail, return receipt requested) to such party at the address in effect for notices under Section 12 of this Agreement and agrees that such service shall constitute good and sufficient notice of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law.

18. Construction.

- (a) The section and exhibit headings herein are for convenience only and shall not affect the construction hereof.
- (b) Words defined in the singular shall have a comparable meaning when used in the plural, and vice versa.
- (c) The words “hereof,” “hereto,” “herein” and “hereunder” and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular provision of this Agreement.
- (d) Wherever the word “include,” “includes” or “including” is used in this Agreement, it shall be deemed to be followed by the words “without limitation.”
- (e) References herein to any gender shall include each other gender.
- (f) References herein to any law, statute, ordinance, code, regulation, rule or other requirement of any governmental authority shall be deemed to refer to such law, statute, ordinance, code, regulation, rule or other requirement of any governmental authority as amended, reenacted, supplemented or superseded in whole or in part and in effect from time to time and also to all rules and regulations promulgated thereunder.

19. Permitted Free Writing Prospectuses. Each of the Company and the Agent represents, warrants and agrees that, unless it obtains the prior written consent of the other party, which consent shall not be unreasonably withheld, conditioned or delayed, it has not made and will not make any offer relating to the Placement Shares that would constitute an issuer free writing prospectus, or that would otherwise constitute a free writing prospectus (as defined in Rule 405), required to be filed with the Commission. Any such free writing prospectus consented to by the Agent or by the Company, as the case may be, is hereinafter referred to as a “**Permitted Free Writing Prospectus.**” The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an issuer free writing prospectus, and that it has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping.

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

- (a) the Agent has been retained to act as sales agent in connection with the sale of the Placement Shares, the Agent has acted at arms’ length and no fiduciary or advisory relationship between the Company or any of its respective affiliates, stockholders (or other equity holders), creditors or employees or any other party, on the one hand, and the Agent, on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Agent has advised or is advising the Company on other matters and the Agent has no duties or obligations to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth herein;
- (b) the Company is capable of evaluating, and understanding and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;
- (c) neither the Agent nor its affiliates have provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated by this Agreement and it has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;
- (d) the Company has been advised and is aware that the Agent and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and

that the Agent and its affiliates have no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(e) the Company waives, to the fullest extent permitted by law, any claims it may have against the Agent or its affiliates for breach of fiduciary duty or alleged breach of fiduciary duty in connection with the transactions contemplated by this Agreement and agrees that the Agent and its affiliates shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders (or other equity holders), creditors or employees of the Company.

21. Recognition of the U.S. Special Resolution Regimes. In the event that the Agent is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from the Agent 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.

In the event that the Agent is a Covered Entity and the Agent or a BHC Act Affiliate of the Agent becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against the Agent 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.

22. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile or electronic transmission. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

23. Use of Information. The Agent may not provide any information gained in connection with this Agreement and the transactions contemplated by this Agreement, including due diligence, to any third party other than its legal counsel advising it on this Agreement and the transactions contemplated by this Agreement unless expressly approved by the Company in writing.

24. Agent’s Information. As used in this Agreement, “**Agent’s Information**” means solely the following information in the Registration Statement and the Prospectus: the ninth paragraph under the heading “Plan of Distribution” in the Prospectus Supplement.

All references in this Agreement to the Registration Statement, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to EDGAR. All references in this Agreement to financial statements and schedules and other information that is “contained,” “included” or “stated” in the Registration Statement 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 that is incorporated by reference in the Registration Statement or the Prospectus, as the case may be.

All references in this Agreement to “supplements” to the Prospectus shall include any supplements, “wrappers” or similar materials prepared in connection with any offering, sale or private placement of any Placement Shares by the Agent outside of the United States.

**[Remainder of Page Intentionally Blank]**

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

Very truly yours,

**SCHRÖDINGER, INC.**

By:  /s/ Ramy Farid \_\_\_\_\_

Name: Ramy Farid

Title: President and Chief Executive Officer

**ACCEPTED as of the date**

**first-above written:**

**SVB SECURITIES LLC**

By:  /s/ Peter M. Fry \_\_\_\_\_

Name: Peter M. Fry

Title: Head of Alternative Equities

**FORM OF PLACEMENT NOTICE**

From: [ ]

[TITLE]

SCHRÖDINGER, INC.

Cc: [ ]

To: SVB Securities LLC

Subject: SVB Securities—At the Market Offering—Placement Notice

Ladies and Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Sales Agreement, dated May 24, 2023 (the “**Agreement**”), by and between Schrödinger, Inc., a Delaware corporation (the “**Company**”), and SVB Securities LLC (“**SVB Securities**”), I hereby request on behalf of the Company that SVB Securities sell up to \$[ ] of shares of common stock, \$0.01 par value per share, of the Company (the “**Shares**”), at a minimum market price of \$[ ] per share[; *provided* that no more than [ ] Shares shall be sold in any one Trading Day (as such term is defined in Section 3 of the Agreement)]. Sales should begin [on the date of this Placement Notice] and end on [DATE] [until all Shares that are the subject of this Placement Notice are sold].

**The Company.**

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**SVB Securities**

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## **SCHEDULE 3**

### **Compensation**

The Company shall pay SVB Securities compensation in cash of up to 3% of the gross proceeds from the sales of Placement Shares pursuant to the terms of the Sales Agreement of which this **Schedule 3** forms a part.



**OFFICERS' CERTIFICATE**

Each of [●], the duly qualified and elected Chief Executive Officer of Schrödinger, Inc., a Delaware corporation (the "**Company**"), and [●], the duly qualified and elected Chief Financial Officer of the Company, does hereby certify in his respective capacity and on behalf of the Company, pursuant to Section 7(m) of the Sales Agreement, dated May 24, 2023 (the "**Sales Agreement**"), by and between the Company and SVB Securities LLC, that, after due inquiry, to the best of the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 6 of the Sales Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Effect, are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions relating to materiality or Material Adverse Effect, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date; provided, however that, in case of (A) and (B), such representations and warranties are qualified by the disclosure included or incorporated by reference in the Registration Statement and Prospectus (including any documents incorporated by reference therein and any supplements thereto) regarding the following matters:

- (a) ; and
- (b) ].

(ii) The Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Sales Agreement at or prior to the date hereof.

Each of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Company, and Cooley LLP, counsel to the Agent, is entitled to rely upon this certificate in connection with the opinions given by such firms pursuant to Sections 8(f) and 8(g), respectively, of the Sales Agreement. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Sales Agreement.

IN WITNESS WHEREOF, each of the undersigned, in such individual's respective capacity as Chief Executive Officer or Chief Financial Officer of the Company, has executed this Officers' Certificate on behalf of the Company.

By: \_\_\_\_\_  
Name:  
Title: Chief Executive Officer  
Date:

By: \_\_\_\_\_  
Name:  
Title: Chief Financial Officer  
Date:

May 24, 2023

Schrödinger, Inc.  
1540 Broadway, 24th Floor  
New York, NY 10036

Re: Prospectus Supplement to Registration Statement on Form S-3ASR

Ladies and Gentlemen:

This opinion is being furnished to you in connection with (i) the Registration Statement on Form S-3ASR (File No. 333-253865) (the “Registration Statement”) filed by Schrödinger, Inc., a Delaware corporation (the “Company”), with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Securities Act”), for the registration of, among other things, an indeterminate number of shares of the Company’s common stock, \$0.01 par value per share (the “Common Stock”), which may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, as set forth in the Registration Statement and the prospectus contained therein (the “Base Prospectus”) and (ii) the prospectus supplement, dated May 24, 2023 (the “Prospectus Supplement” and, together with the Base Prospectus, the “Prospectus”) relating to the issuance and sale from time to time by the Company of shares of Common Stock with an aggregate offering price of up to \$250,000,000 (the “Shares”).

The Shares are to be issued and sold by the Company pursuant to a Sales Agreement, dated as of May 24, 2023, between the Company and SVB Securities LLC (the “Agreement”). The Agreement is being filed with the Commission as Exhibit 1.1 to the Company’s Current Report on Form 8-K, filed on the date hereof.

We are acting as counsel for the Company in connection with the issue and sale by the Company of the Shares pursuant to the Agreement. We have examined and relied upon copies of the Registration Statement and the Prospectus, as filed with the Commission, including the exhibits thereto. We have also examined and relied upon the Agreement, minutes of meetings of the stockholders and the Board of Directors of the Company (including committees thereof) as provided to us by the Company, stock record books of the Company as provided to us by the Company, the Certificate of Incorporation and By-laws of the Company, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We have relied as to certain matters on information obtained from public officials and officers of the Company, and we have assumed that (i) the Shares will be issued and sold in

Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109

Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington

compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement, the Prospectus and any applicable prospectus supplement; (ii) there will be sufficient shares of Common Stock authorized under the Certificate of Incorporation and not otherwise reserved for issuance; and (iii) at the time of the issuance and sale of the Shares, the Company will be validly existing as a corporation and in good standing under the laws of the State of Delaware.

We have assumed that there will not have occurred, prior to the date of issuance of the Shares, any change in law affecting the validity of such Shares and that at the time of the issuance and sale of the Shares, the Board of Directors of the Company (or any committee thereof acting pursuant to authority properly delegated to such committee by the Board of Directors) shall not have taken any action to rescind or otherwise reduce its prior authorization of the issuance of the Shares.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware. We also express no opinion herein with respect to compliance by the Company with the securities or “blue sky” laws of any state or other jurisdiction of the United States or of any foreign jurisdiction.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Agreement, the Shares will be validly issued, fully paid and non-assessable.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion with the Commission in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act as an exhibit to the Current Report on Form 8-K to be filed by the Company on the date hereof in connection with the issuance and sale of the Shares and to the use of our name therein and in the related Prospectus Supplement under the caption “Legal Matters.” In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Wilmer Cutler Pickering Hale and Dorr LLP

WILMER CUTLER PICKERING  
HALE AND DORR LLP

May 24, 2023

Schrödinger, Inc.  
1540 Broadway, 24th Floor  
New York, NY 10036

Re: Prospectus Supplement to Registration Statement on Form S-3ASR

Ladies and Gentlemen:

This opinion is being furnished to you in connection with (i) the Registration Statement on Form S-3ASR (File No. 333-253865) (the "Registration Statement") filed by Schrödinger, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of, among other things, an indeterminate number of shares of the Company's common stock, \$0.01 par value per share (the "Common Stock"), which may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, as set forth in the Registration Statement and the prospectus contained therein (the "Base Prospectus") and (ii) the prospectus supplement, dated May 24, 2023 (the "Prospectus Supplement" and, together with the Base Prospectus, the "Prospectus") relating to the issuance and sale from time to time by the Company of shares of Common Stock with an aggregate offering price of up to \$250,000,000 (the "Shares").

The Shares are to be issued and sold by the Company pursuant to a Sales Agreement, dated as of May 24, 2023, between the Company and SVB Securities LLC (the "Agreement"). The Agreement is being filed with the Commission as Exhibit 1.1 to the Company's Current Report on Form 8-K, filed on the date hereof.

We are acting as counsel for the Company in connection with the issue and sale by the Company of the Shares pursuant to the Agreement. We have examined and relied upon copies of the Registration Statement and the Prospectus, as filed with the Commission, including the exhibits thereto. We have also examined and relied upon the Agreement, minutes of meetings of the stockholders and the Board of Directors of the Company (including committees thereof) as provided to us by the Company, stock record books of the Company as provided to us by the Company, the Certificate of Incorporation and By-laws of the Company, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

We have relied as to certain matters on information obtained from public officials and officers of the Company, and we have assumed that (i) the Shares will be issued and sold in

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Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington

compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement, the Prospectus and any applicable prospectus supplement; (ii) there will be sufficient shares of Common Stock authorized under the Certificate of Incorporation and not otherwise reserved for issuance; and (iii) at the time of the issuance and sale of the Shares, the Company will be validly existing as a corporation and in good standing under the laws of the State of Delaware.

We have assumed that there will not have occurred, prior to the date of issuance of the Shares, any change in law affecting the validity of such Shares and that at the time of the issuance and sale of the Shares, the Board of Directors of the Company (or any committee thereof acting pursuant to authority properly delegated to such committee by the Board of Directors) shall not have taken any action to rescind or otherwise reduce its prior authorization of the issuance of the Shares.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware. We also express no opinion herein with respect to compliance by the Company with the securities or “blue sky” laws of any state or other jurisdiction of the United States or of any foreign jurisdiction.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Agreement, the Shares will be validly issued, fully paid and non-assessable.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion with the Commission in accordance with the requirements of Item 601(b) (5) of Regulation S-K under the Securities Act as an exhibit to the Current Report on Form 8-K to be filed by the Company on the date hereof in connection with the issuance and sale of the Shares and to the use of our name therein and in the related Prospectus Supplement under the caption “Legal Matters.” In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Wilmer Cutler Pickering Hale and Dorr LLP

WILMER CUTLER PICKERING  
HALE AND DORR LLP