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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): April 6, 2018**

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**SYNOLOGIC, INC.**  
(Exact name of registrant as specified in its charter)

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

**001-37566**  
(Commission  
File Number)

**26-1824804**  
(IRS Employer  
Identification No.)

**301 Binney Street, Suite 402**  
**Cambridge, MA**  
(Address of principal executive offices)

**02142**  
(Zip Code)

**(617) 401-9975**  
Registrant's telephone number, including area code

**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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

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 April 6, 2018, Synlogic, Inc., a Delaware corporation (the “Company”), entered into a Subscription Agreement (the “Subscription Agreement”) with a large mutual fund investor (the “Investor”), pursuant to which the Company agreed to issue and sell, in a registered public offering by the Company directly to the Investor (the “Public Offering”), an aggregate of 3,280,000 shares (the “Shares”) of common stock, par value \$0.001 per share, of the Company (“Common Stock”), at an offering price of \$9.15 per share for gross proceeds of approximately \$30.0 million before deducting the placement agent fee and related offering expenses. The Shares were offered by the Company pursuant to a registration statement on Form S-3 (File No. 333-220948), which was filed with the Securities and Exchange Commission (the “Commission”) on October 13, 2017 and was declared effective by the Commission on October 25, 2017 (the “Registration Statement”).

On April 6, 2018, the Company entered into a Placement Agency Agreement (the “Placement Agency Agreement”) with Leerink Partners LLC, (“Leerink” or the “Placement Agent”) pursuant to which the Company engaged Leerink as the sole placement agent in connection with the Offering. The Placement Agent agreed to use its commercially reasonable efforts to arrange for the sale of the Shares. The Company agreed to pay the Placement Agent a placement agent fee in cash equal to 3.0% of the gross proceeds from the sale of the Shares. The Placement Agency Agreement also contains representations, warranties, indemnification and other provisions customary for transactions of this nature.

The foregoing summaries of the Subscription Agreement and the Placement Agency Agreement do not purport to be complete and are subject to, and qualified in their entirety by, such documents attached as Exhibits 10.1 and 1.1, respectively, to this Current Report on Form 8-K, which are incorporated herein by reference.

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

On April 6, 2018, the Company issued a press release announcing the Offering. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K. A copy of the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. relating to the legality of the issuance and sale of the Shares is attached as Exhibit 5.1 hereto.

**Item 9.01. Financial Statements and Exhibits.****(d) Exhibits**

<u>Exhibit No.</u>	<u>Description</u>
1.1	<a href="#"><u>Placement Agency Agreement dated as of April 6, 2018, by and between Synlogic, Inc. and Leerink Partners LLC.</u></a>
5.1	<a href="#"><u>Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.</u></a>
10.1	<a href="#"><u>Form of Subscription Agreement, dated as of April 6, 2018, by and among Synlogic, Inc. and the Investors.</u></a>
23.1	<a href="#"><u>Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1).</u></a>
99.1	<a href="#"><u>Press Release of Synlogic, Inc. dated April 6, 2018.</u></a>

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**SIGNATURES**

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

Date: April 6, 2018

Synlogic, Inc.

By: /s/ Todd Shegog

Name: Todd Shegog

Title: Chief Financial Officer

SYNOLOGIC, INC.

(a Delaware corporation)

3,280,000 Shares of Common Stock

**PLACEMENT AGENCY AGREEMENT**

April 6, 2018

Leerink Partners LLC  
299 Park Avenue, 21st Floor  
New York, NY 10176

Ladies and Gentlemen:

Synlogic, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions herein, to issue and sell an aggregate of up to 3,280,000 (the "Securities"), of common stock \$0.001 par value per share (the "Common Stock") to certain investors (each an "Investor" and collectively the "Investors"), in an offering under its registration statement on Form S-3 (Registration No. 333-220948). The Common Stock is more fully described in the General Disclosure Package (as defined below). The Company desires to engage Leerink Partners LLC as the Company's exclusive placement agent (in such capacity, the "Placement Agent") in connection with such issuance and sale of the Common Shares. As used herein, the term "Placement Agent" included any person substituted for or added as a Placement Agent.

**SECTION 1. Agreement to Act as Placement Agent.**

(a) On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Placement Agency Agreement (this "Agreement") between the Company and the Placement Agent, the Placement Agent shall act as placement agent on a commercially reasonable efforts basis, in connection with the issuance and sale by the Company of the Securities to the Investors in a proposed takedown under the Registration Statement (as defined below), with the terms of the offering to be subject to market conditions and negotiations between the Company, the Placement Agent and the prospective Investors (such takedown shall be referred to herein as the "Offering"). As compensation for services rendered, and provided that any of the Securities are sold to Investors in the Offering, on the Closing Date (as defined below) of the Offering, the Company shall pay to the Placement Agent an amount equal to 3.0% of the gross proceeds received by the Company from the sale of the Securities (the "Placement Fee"). The sale of the Securities shall be made pursuant to subscription agreements in the form included as Exhibit A hereto (each, a "Subscription Agreement" and collectively, the "Subscription Agreements") on the terms described on Schedule A-1 hereto. The Placement Agent shall communicate to the Company, orally or in writing, each reasonable offer to purchase Securities received by it as agent of the Company. The Company shall have the sole right to accept offers to purchase the Securities and may reject any such offer in whole or in part. Notwithstanding the foregoing, it is understood and agreed that the Placement Agent or any of its affiliates may, solely at their discretion

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and without any obligation to do so, purchase Securities as principal; *provided*, that any such purchases by the Placement Agent (or its affiliates) shall be fully disclosed to the Company and approved by the Company in accordance with the previous two sentences.

(b) This Agreement shall not give rise to any commitment by the Placement Agent to purchase any of the Securities, and the Placement Agent shall have no authority to bind the Company to accept offers to purchase the Securities. The Placement Agent shall act on a commercially reasonable efforts basis and does not guarantee that it will be able to raise new capital in the Offering. The Placement Agent may retain other brokers or dealers to act as sub-agents on its behalf in connection with the Offering, the fees of which shall be paid out of the Placement Fee. Prior to the earlier of (i) the date on which this Agreement is terminated and (ii) the Closing Date, the Company shall not, without the prior written consent of the Placement Agent, solicit or accept offers to purchase the Securities (other than pursuant to the exercise of options or warrants to purchase shares of Common Stock that are outstanding at the date hereof) otherwise than through the Placement Agent in accordance herewith.

(c) Payment of the purchase price for, and delivery of, the Securities shall be made at a closing (the "Closing") at the offices of Goodwin Procter LLP, counsel for the Placement Agent, located at 620 Eighth Avenue, New York, NY 10018 at 10:00 a.m., local time, on or before April 10, 2018 or at such time on such other date as may be agreed upon in writing by the Company and the Placement Agent (such date of payment and delivery being herein called the "Closing Date"). All such actions taken at the Closing shall be deemed to have occurred simultaneously. No Securities which the Company has agreed to sell pursuant to this Agreement and the Subscription Agreements shall be deemed to have been purchased and paid for, or sold by the Company, until such Securities shall have been delivered to the Investor thereof against payment therefor by such Investor. If the Company shall default in its obligations to deliver Securities to an Investor with which it has entered into a Subscription Agreement, the Company shall indemnify and hold the Placement Agent harmless from and against any loss, claim, damage or liability incurred by the Placement Agent arising from or as a result of such default by the Company.

(d) The Securities shall be delivered, through the facilities of The Depository Trust Company and shall be registered in such name or names and shall be in such denominations, as the Placement Agent may request by written notice to the Company at least one business day before the Closing Date.

(e) The Company has filed with the Securities and Exchange Commission (the "Commission") a shelf registration statement on Form S-3 (No. 333-220948), covering the public offering and sale of certain securities, including the Securities, under the Securities Act of 1933, as amended (the "1933 Act") and the rules and regulations of the Commission promulgated thereunder (the "1933 Act Regulations"), which shelf registration statement was declared effective on October 25, 2017. Such registration statement, as of any time, means such registration statement as amended by any post-effective amendments thereto at such time, including the exhibits and any schedules thereto at such time, the documents incorporated or deemed to be incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the 1933 Act and the documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B under the 1933 Act Regulations ("Rule 430B"), is referred to herein as the "Registration Statement;" provided, however, that the "Registration Statement" without reference to a time means such registration statement as amended by any post-effective amendments thereto as of the time of the first contract of sale for the Securities, which time shall be considered the "new effective date" of such registration statement with respect to the Securities within the meaning of paragraph (f)(2) of Rule 430B, including the exhibits and schedules thereto as of such time, the documents incorporated or deemed incorporated by reference therein at such time pursuant to Item 12 of Form S-3 under the 1933 Act and the documents otherwise deemed to be a part thereof as of such time pursuant to the Rule 430B. Any registration statement filed pursuant to Rule 462(b) of the 1933 Act Regulations in connection with the offer and sale of the Securities is herein called the "Rule 462(b) Registration Statement" and, after such filing, the term "Registration

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Statement” shall include the Rule 462(b) Registration Statement. Each preliminary prospectus used in connection with the offering of the Securities, including the documents incorporated or deemed to be incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act, are collectively referred to herein as a “preliminary prospectus.” Promptly after execution and delivery of this Agreement, the Company will prepare and file a final prospectus relating to the Securities in accordance with the provisions of Rule 424(b) under the 1933 Act Regulations (“Rule 424(b)”). The final prospectus, in the form first furnished or made available to the Placement Agent for use in connection with the offering of the Securities, including the documents incorporated or deemed to be incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act, are collectively referred to herein as the “Prospectus.” For purposes of this Agreement, all references to the Registration Statement, any preliminary prospectus, 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 its Electronic Data Gathering, Analysis and Retrieval system (or any successor system)(“EDGAR”).

As used in this Agreement:

“Applicable Time” means 7:00 A.M., New York City time, on April 6, 2018 or such other time as agreed by the Company and the Placement Agent.

“General Disclosure Package” means any Issuer General Use Free Writing Prospectuses issued at or prior to the Applicable Time, the most recent preliminary prospectus (including any documents incorporated therein by reference) that is distributed to investors prior to the Applicable Time and the information included on Schedule A-1 hereto, all considered together.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 of the 1933 Act Regulations (“Rule 433”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the 1933 Act Regulations (“Rule 405”)) relating to the Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show for an offering that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Securities or of the offering that does not reflect the final terms, 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).

“Issuer General Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433 (a “Bona Fide Electronic Road Show”)), as evidenced by its being specified in Schedule A-2 hereto.

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

“Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the 1933 Act.

“Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the 1933 Act.

(f) All references in this Agreement to financial statements and schedules and other information which is “contained,” “included” or “stated” (or other references of like import) in the Registration Statement, any preliminary prospectus or the Prospectus shall be deemed to include all such

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financial statements and schedules and other information incorporated or deemed incorporated by reference in the Registration Statement, any preliminary prospectus or the Prospectus, as the case may be, prior to the execution and delivery of this Agreement; and all references in this Agreement to amendments or supplements to the Registration Statement, any preliminary prospectus or the Prospectus shall be deemed to include the filing of any document under the Securities Exchange Act of 1934, as amended (the "1934 Act"), and the rules and regulations promulgated thereunder (the "1934 Act Regulations"), incorporated or deemed to be incorporated by reference in the Registration Statement, such preliminary prospectus or the Prospectus, as the case may be, at or after the execution and delivery of this Agreement.

SECTION 2. Representations and Warranties.

(a) Representations and Warranties by the Company. The Company represents and warrants to each Placement Agent as of the date hereof, the Applicable Time and the Closing Time (as defined below) and agrees with each Placement Agent, as follows:

(i) Registration Statement and Prospectuses. The Company meets the requirements for use of Form S-3 under the 1933 Act. Each of the Registration Statement and any amendment thereto has become effective under the 1933 Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued by the Commission under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued by the Commission and no proceedings for any of those purposes have been instituted by the Commission or are pending or, to the Company's knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information.

Each of the Registration Statement and any post-effective amendment thereto, at the time of its effectiveness and at each deemed effective date with respect to the Placement Agent pursuant to Rule 430B(f)(2) under the 1933 Act Regulations, complied in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus, the Prospectus and any amendment or supplement thereto, at the time each was filed with the Commission, complied in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Each preliminary prospectus delivered to the Placement Agent for use in connection with the offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus, when they became effective or at the time they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the 1934 Act and the 1934 Act Regulations.

The Registration Statement, any preliminary prospectus and the Prospectus, and the filing of the Registration Statement, any preliminary prospectus and the Prospectus with the Commission have been duly authorized by and on behalf of the Company, and the Registration Statement has been duly executed pursuant to such authorization.

(ii) Accurate Disclosure. Neither the Registration Statement nor any amendment thereto, at its effective time, at the Closing Time or at any Date of Delivery, contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, none of (A) the General Disclosure Package, (B) any individual Issuer

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Limited Use Free Writing Prospectus, when considered together with the General Disclosure Package, nor (C) any individual Written Testing-the-Waters Communication, when considered together with the General Disclosure Package, 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. Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing 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. The documents incorporated or deemed to be incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, at the time the Registration Statement became effective or when such documents incorporated by reference were filed with the Commission, as the case may be, when read together with the other information in the Registration Statement, the General Disclosure Package or the Prospectus, as the case may be, did not and will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(iii) Issuer Free Writing Prospectuses. No Issuer Free Writing Prospectus conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any document incorporated by reference therein, and any preliminary or other prospectus deemed to be a part thereof that has not been superseded or modified. No filing of any “road show” (as defined in Rule 433(h)) is required in connection with the offering of the Securities. Any Issuer Free Writing Prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the 1933 Act and the 1933 Act Regulations. Each Issuer Free Writing Prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the 1933 Act or that was prepared by or behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of the 1933 Act and the 1933 Act Regulations. Except for the Issuer Free Writing Prospectuses, if any, identified in Schedule A-2 hereto, and electronic road shows, if any, each furnished to the Placement Agent before first use, the Company has not prepared, used or referred to, and will not, without the prior consent of the Placement Agent, prepare, use or refer to, any issuer free writing prospectus.

(iv) Testing-the-Waters Materials. The Company (A) has not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Placement Agent with entities that it has reasonable basis to believe are qualified institutional buyers within the meaning of Rule 144A under the 1933 Act or institutions that are accredited investors within the meaning of Rule 501 under the 1933 Act and (B) has not authorized anyone other than the Placement Agent to engage in Testing-the-Waters Communications. The Company reconfirms that the Placement Agent has been authorized to act on its behalf in undertaking Testing-the-Waters Communications authorized by the Company. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule A-3 hereto.



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(v) Company Not Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendments thereto, at the earliest time thereafter that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) of the 1933 Act Regulations) of the Securities and at the date hereof, 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.

(vi) Emerging Growth Company Status. From the time of the initial filing of the Registration Statement with the Commission (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the 1933 Act (an “Emerging Growth Company”).

(vii) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement, the General Disclosure Package and the Prospectus are independent public accountants with respect to the Company or Mirna Therapeutics, Inc., as applicable, as required by the 1933 Act, the 1933 Act Regulations, the 1934 Act, the 1934 Act Regulations and the Public Company Accounting Oversight Board (United States).

(viii) Financial Statements; Non-GAAP Financial Measures. The financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, comply as to form in all material respects with Regulation S-X under the 1933 Act and present fairly, in all material respects, the financial position of the Company and its consolidated Subsidiaries (as defined below) at the dates indicated and the statement of operations, stockholders’ equity and cash flows of the Company and its consolidated Subsidiaries for the periods specified; said financial statements have been prepared in conformity in all material respects with U.S. generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods involved, except, in the case of unaudited, interim financial statements, subject to normal year-end adjustments and the exclusion of certain footnotes. The supporting schedules, if any, present fairly, in all material respects, in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly, in all material respects, the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. The pro forma financial statements and the related notes thereto included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly the information shown therein, have been prepared in accordance with the Commission’s rules and guidelines with respect to pro forma financial statements and have been properly compiled on the bases described therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus under the 1933 Act or the 1933 Act Regulations. All disclosures contained in the Registration Statement, the General Disclosure Package or the Prospectus, or incorporated by reference therein, regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the

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Commission) comply with Regulation G of the 1934 Act, and Item 10 of Regulation S-K, to the extent applicable. The interactive data in eXtensible Business Reporting Language incorporated by reference in the Registration Statement, the General Disclosure Package 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.

(ix) Compliance with the Sarbanes-Oxley Act of 2002. There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any applicable provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(x) No Material Adverse Change in Business. Except as otherwise stated therein, since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, (A) there has been no material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business (a "Material Adverse Effect"), (B) there have been no transactions entered into by the Company or its Subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its Subsidiaries considered as one enterprise, (C) there have been no material liabilities or obligations, direct or contingent, entered into by the Company or any of its Subsidiaries and (D) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

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

(xii) Good Standing of the Company's Subsidiaries. Each subsidiary of the Company (collectively, the "Subsidiaries") has been duly organized and is validly existing in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or to be in good standing would not result in a Material Adverse Effect. Except as otherwise disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, all of the issued and outstanding capital stock of each Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and is owned by the Company, directly or through Subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity. None of the outstanding shares of capital stock of any Subsidiary was issued in violation of the preemptive or similar rights of any securityholder of such Subsidiary. The only Subsidiaries are the entities listed on Schedule B.

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(xiii) Capitalization. The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the Registration Statement, the General Disclosure Package and the Prospectus in the column entitled “Actual” under the caption “Capitalization” (except for subsequent issuances, if any, (A) pursuant to this Agreement, (B) pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement, the General Disclosure Package and the Prospectus or (C) pursuant to the conversion of convertible securities or exercise of options referred to in the Registration Statement, the General Disclosure Package and the Prospectus). The outstanding shares of capital stock of the Company have been duly authorized and are validly issued, fully paid and non-assessable. None of the outstanding shares of capital stock of the Company was issued in violation of the preemptive or other similar rights of any securityholder of the Company.

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

(xv) Authorization and Description of Securities. The Securities to be purchased by the Investors from the Company have been duly authorized for issuance and sale to the Investors pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement against payment of the consideration set forth herein, will be validly issued and fully paid and non-assessable; and the issuance of the Securities is not subject to the preemptive or other similar rights of any securityholder of the Company. The Common Stock conforms in all material respects to all statements relating thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus and such description conforms in all material respects to the rights set forth in the instruments defining the same. No holder of Securities will be subject to personal liability solely by reason of being such a holder.

(xvi) Registration Rights. There are no persons with registration rights or other similar rights to have any securities registered for sale pursuant to the Registration Statement or otherwise registered for sale or sold by the Company under the 1933 Act pursuant to this Agreement, other than those rights that have been disclosed in the Registration Statement, the General Disclosure Package and the Prospectus and have been waived.

(xvii) Absence of Violations, Defaults and Conflicts. Neither the Company nor any Subsidiary is (A) in violation of its charter, by-laws or similar organizational document, (B) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any Subsidiary is a party or by which either of them is bound or to which any of the properties or assets of the Company or any Subsidiary is subject (collectively, “Agreements and Instruments”), except for such defaults that would not, singly or in the aggregate, result in a Material Adverse Effect, or (C) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or its Subsidiaries or any of their respective properties, assets or operations (each, a “Governmental Entity”), except for such violations that would not, singly or in the aggregate, result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein and in the Registration Statement, the General Disclosure Package and the Prospectus (including the issuance and sale of the Securities and the use of the proceeds from the sale of the Securities as described therein under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both, conflict with or constitute a breach of, or default or

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Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or its Subsidiaries pursuant to, the Agreements and Instruments (except for such conflicts, breaches, defaults or Repayment Events or liens, charges or encumbrances that would not, singly or in the aggregate, result in a Material Adverse Effect), nor will such action result in any violation of the provisions of the charter, by-laws or similar organizational document of the Company or its Subsidiaries or any law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity. As used herein, a “Repayment Event” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or its Subsidiaries.

(xviii) Listing. The Securities have been approved for listing on the Nasdaq Capital Market, subject to notice of issuance.

(xix) Absence of Labor Dispute. No labor dispute with the employees of the Company or its Subsidiaries exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its Subsidiaries’ principal suppliers, manufacturers, customers or contractors, which, in either case, would result in a Material Adverse Effect.

(xx) Absence of Proceedings. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there is no action, suit, proceeding, inquiry or, to the knowledge of the Company, investigation before or brought by any Governmental Entity (including, without limitation, any action, suit proceeding, inquiry or investigation before or brought by the U.S. Food and Drug Administration (the “FDA”)) now pending or, to the knowledge of the Company, threatened, against or affecting the Company or its Subsidiaries, which would reasonably be expected to result in a Material Adverse Effect, or which would reasonably be expected to materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated in this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental proceedings to which the Company or any such Subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement, the General Disclosure Package and the Prospectus, including ordinary routine litigation incidental to the business, would not reasonably be expected to result in a Material Adverse Effect.

(xxi) Accuracy of Exhibits. There are no contracts or documents which are required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(xxii) Absence of Further Requirements. No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any Governmental Entity is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Securities hereunder or the consummation of the transactions contemplated by this Agreement, except such as have been already obtained or as may be required under the 1933 Act, the 1933 Act Regulations, the rules of the Nasdaq Stock Market LLC, state securities laws or the rules of the Financial Industry Regulatory Authority, Inc. (“FINRA”).

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(xxiii) Possession of Licenses and Permits. The Company and its Subsidiaries possess such permits, licenses, approvals, consents and other authorizations (collectively, "Governmental Licenses") issued by the appropriate Governmental Entities necessary to conduct the business now operated by them, except where the failure so to possess would not, singly or in the aggregate, result in a Material Adverse Effect. The Company and its Subsidiaries are in compliance with the terms and conditions of all Governmental Licenses, except where the failure so to comply would not, singly or in the aggregate, result in a Material Adverse Effect. All of the Governmental Licenses are valid and in full force and effect, except where the invalidity of such Governmental Licenses or the failure of such Governmental Licenses to be in full force and effect would not, singly or in the aggregate, result in a Material Adverse Effect. Neither the Company nor its Subsidiaries have received any notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would result in a Material Adverse Effect.

(xxiv) Title to Property. The Company and its Subsidiaries have good and marketable title to all real property owned by them and good title to all other properties owned by them, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (A) are described in the Registration Statement, the General Disclosure Package and the Prospectus or (B) do not, singly or in the aggregate, materially adversely affect the value of such property and do not materially adversely interfere with the use made and proposed to be made of such property by the Company or its Subsidiaries; and all of the leases and subleases material to the business of the Company and its Subsidiaries, considered as one enterprise, and under which the Company or its Subsidiaries holds properties described in the Registration Statement, the General Disclosure Package or the Prospectus, are in full force and effect, and neither the Company nor any such Subsidiary has any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(xxv) Title to Intellectual Property. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, the Company owns or has valid, binding and enforceable licenses or other rights under the patents, patent applications, licenses, inventions, copyrights, know how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property necessary for, or used in the conduct, or the proposed conduct, of the business of the Company in the manner described in the Registration Statement, the General Disclosure Package and the Prospectus (collectively, the "Intellectual Property"); the patents, trademarks, and copyrights, if any, included within the Intellectual Property are valid, enforceable, and subsisting; other than as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, (A) the Company is not obligated to pay a material royalty, grant a license to, or provide other material consideration to any third party in connection with the Intellectual Property, (B) the Company has not received any notice of any claim of infringement, misappropriation or conflict with any asserted rights of others with respect to any of the Company's drug candidates, services, processes or Intellectual Property, (C) to the knowledge of the Company, neither the sale nor use of any of the discoveries, inventions, drug candidates, services or processes of the Company referred to in the Registration Statement, the General Disclosure Package or the Prospectus do or will, to the knowledge of the Company, infringe, misappropriate or violate any right or valid patent claim of any third party, (D) none of the technology employed by the Company has been obtained or is being used by the Company in material violation of any contractual obligation binding on the Company or, to the Company's knowledge, upon any of its officers,

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directors or employees or otherwise in violation of the rights of any persons, (E) to the knowledge of the Company, no third party has any ownership right in or to any Intellectual Property that is owned by the Company, other than any co-owner of any patent constituting Intellectual Property who is listed on the records of the U.S. Patent and Trademark Office (the “USPTO”) and any co-owner of any patent application constituting Intellectual Property who is named in such patent application, and, to the knowledge of the Company, no third party has any ownership right in or to any Intellectual Property in any field of use that is exclusively licensed to the Company, other than any licensor to the Company of such Intellectual Property, (F) to the knowledge of the Company, there is no material infringement by third parties of any Intellectual Property, (G) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the Company’s rights in or to any Intellectual Property, and (H) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any Intellectual Property. The Company is in compliance in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company, and all such agreements are in full force and effect.

(xxvi) Patents and Patent Applications. All patents and patent applications owned by or licensed to the Company or under which the Company has rights have, to the knowledge of the Company, been duly and properly filed and maintained; to the knowledge of the Company, the parties prosecuting such patent applications have complied with their duty of candor and disclosure to the USPTO in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or would reasonably be expected to form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications. To the Company’s knowledge, all patents and patent applications owned by the Company and filed with the USPTO or any foreign or international patent authority (the “Company Patent Rights”) and all patents and patent applications in-licensed by the Company and filed with the USPTO or any foreign or international patent authority (the “In-licensed Patent Rights”) have been duly and properly filed; the Company believes it has complied with its duty of candor and disclosure to the USPTO for the Company Patent Rights and, to the Company’s knowledge, the licensors of the In-licensed Patent Rights have complied with their duty of candor and disclosure to the USPTO for the In-licensed Patent Rights.

(xxvii) FDA Compliance. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, the Company: (A) is and at all times has been in material compliance with all statutes, rules or regulations of the FDA and other comparable Governmental Entities applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product under development, manufactured or distributed by the Company (“Applicable Laws”); (B) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from the FDA or any other Governmental Entity alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, exemptions, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (“Authorizations”); (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and the Company is not in material violation of any term of any such Authorizations; (D) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from the FDA or any other Governmental Entity or third party alleging that any product operation or activity is in material violation of any Applicable Laws or Authorizations and has no knowledge that the FDA or any other Governmental Entity or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E)

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has not received notice that the FDA or any other Governmental Entity has taken, is taking or intends to take action to limit, suspend, modify or revoke any material Authorizations and has no knowledge that the FDA or any other Governmental Entity is considering such action; and (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were materially complete and correct on the date filed (or were corrected or supplemented by a subsequent submission).

(xxviii) Compliance with Health Care Laws. The Company has operated and currently is in compliance with all applicable health care laws, rules and regulations to the extent they apply to the Company and its current activities (except where such failure to operate or non-compliance would not, singly or in the aggregate, result in a Material Adverse Effect), including, without limitation, (i) the Federal, Food, Drug and Cosmetic Act (21 U.S.C. §§ 301 et seq.); (ii) all applicable federal, state, local and all applicable foreign healthcare related fraud and abuse laws, including, without limitation, the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the U.S. Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to healthcare fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, the healthcare fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) (42 U.S.C. Section 1320d et seq.), the exclusion laws (42 U.S.C. § 1320a-7), and the civil monetary penalties law (42 U.S.C. § 1320a-7a); (iii) HIPAA, as amended by the Health Information Technology for Economic Clinical Health Act (42 U.S.C. Section 17921 et seq.); (iv) the regulations promulgated pursuant to such laws; and (v) any other similar local, state, federal, or foreign laws (collectively, the “Health Care Laws”). Neither the Company, nor to the Company’s knowledge, any of its officers, directors, employees or agents have engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal healthcare program. The Company has not received written notice or other correspondence of any claim, action, suit, audit, survey, proceeding, hearing, enforcement, investigation, arbitration or other action (“Action”) from any court or arbitrator or Governmental Entity or third party alleging that any product operation or activity is in violation of any Health Care Laws, and, to the Company’s knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened. The Company is not a party to and does not have any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any Governmental Entity. Additionally, neither the Company, nor to the Company’s knowledge, any of its employees, officers or directors, has been excluded, suspended or debarred from participation in any U.S. state or federal health care program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

(xxix) Environmental Laws. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus or would not, singly or in the aggregate, result in a Material Adverse Effect, (A) neither the Company nor any Subsidiary is in violation of any applicable federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater,

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land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, "Hazardous Materials") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "Environmental Laws"), (B) the Company and its Subsidiaries have all permits, authorizations and approvals required for their operations under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the knowledge of the Company threatened, administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any Subsidiary and (D) to the Company's knowledge, there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any Subsidiary relating to Hazardous Materials or any Environmental Laws.

(xxx) Accounting Controls and Disclosure Controls. The Company maintains a system of "internal control over financial reporting" (as such term is defined in Rule 13a-15(f) of the 1934 Regulations) that complies with the requirements of the Exchange Act and has been designed by its respective principal executive and principal financial officers, or under their supervision and are sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences and (v) the interactive data in eXTensible Business Reporting Language incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company has no reason to believe that it does not comply with Section 215.02 of the Commission's Compliance and Disclosure Interpretations of Regulation S-K regarding a one-year transition under Item 308(a) of Regulation S-K with respect to its annual report on Form 10-K for the year ending December 31, 2017 and the Company has availed itself of such relief.

(xxxii) Nonclinical Studies and Clinical Trials. The nonclinical studies and clinical trials conducted by or, to the Company's knowledge, on behalf of the Company were and, if still ongoing, are being conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to accepted professional scientific standards and all Authorizations and Applicable Laws, including, without limitation, the Federal Food, Drug and Cosmetic Act and the rules and regulations promulgated thereunder (collectively, "FFDCA"); the descriptions of the results of such nonclinical studies and clinical trials contained in the Registration Statement, the General Disclosure Package and the Prospectus are, to the Company's knowledge, accurate and complete in all material respects and fairly present the data derived from such nonclinical studies and clinical trials; except to the extent disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company is not aware of any nonclinical studies or



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clinical trials, the results of which the Company believes reasonably call into question any study or trial results described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus when viewed in the context in which such results are described; and, except to the extent disclosed in the Registration Statement, the General Disclosure Package or the Prospectus, the Company has not received any written notices or other correspondence from the FDA or any other Governmental Entity requiring the termination or suspension of any studies or clinical trials conducted by or on behalf of the Company, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or trials, copies of which communications have been made available to you.

(xxxii) Payment of Taxes. All United States federal income tax returns of the Company and its Subsidiaries required by law to be filed have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided in conformity with GAAP. The United States federal income tax returns of the Company through the fiscal year ended December 31, 2016 have been settled and no assessment in connection therewith has been made against the Company. The Company and its Subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, state, local or other law except insofar as the failure to file such returns would not result in a Material Adverse Effect, and have paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its Subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are, in conformity with GAAP, adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not result in a Material Adverse Effect.

(xxxiii) Insurance. The Company and its Subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as is generally maintained by companies of established repute and comparable size engaged in the same or similar business, and all such insurance is in full force and effect. The Company has no reason to believe that it or its Subsidiaries will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Effect. Neither of the Company nor its Subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(xxxiv) Investment Company Act. The Company is not required, and upon the issuance and sale of the Securities as herein contemplated and the application of the net proceeds therefrom as described in the Registration Statement, the General Disclosure Package and the Prospectus will not be required, to register as an “investment company” under the Investment Company Act of 1940, as amended (the “1940 Act”).

(xxxv) Absence of Manipulation. Neither the Company nor, to the knowledge of the Company, any affiliate of the Company has taken, nor will the Company or any affiliate take, directly or indirectly, any action which is designed, or would reasonably be expected, to cause or result in, or which constitutes, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or to result in a violation of Regulation M under the 1934 Act.

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(xxxvi) Foreign Corrupt Practices Act. None of the Company, its Subsidiaries or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or its Subsidiaries is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “FCPA”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company has and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

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

(xxxviii) OFAC. None of the Company, its Subsidiaries or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or representative of the Company or its Subsidiaries is an individual or entity (“Person”) currently the subject or target of any sanctions administered or enforced by the United States Government, including, without limitation, the U.S. Department of the Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “Sanctions”), nor is the Company located, organized or resident in a country or territory that is the subject of Sanctions; and the Company will not directly or indirectly use the proceeds of the sale of the Securities, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partners or other Person, to fund any activities of or business with any Person, or in any country or territory, that, at the time of such funding, is the subject of Sanctions or in any other manner that will result in a violation by any Person (including any Person participating in the transaction, whether as an agent, advisor, investor or otherwise) of Sanctions.

(xxxix) Lending Relationship. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other relationship with any banking or lending affiliate of any Placement Agent and (ii) does not intend to use any of the proceeds from the sale of the Securities to repay any outstanding debt owed to any affiliate of any Placement Agent.

(xl) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement, the General Disclosure Package 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 and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

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(xli) Maintenance of Rating. The Company has no debt securities or preferred stock that is rated by any “nationally recognized statistical rating organization” (as that term is defined by the Commission for purposes of Rule 436(g)(2) under the 1933 Act).

(xlii) No Broker Fees. Except as disclosed in the General Disclosure Package, there are no contracts, agreements or understandings between the Company and any person that would give rise to a valid claim against the Company or any Placement Agent for a brokerage commission, finder’s fee or other like payment in connection with the offering of the Securities contemplated hereby.

(b) *Officer’s Certificates*. Any certificate signed by any officer of the Company or any of its Subsidiaries delivered to the Placement Agent or to counsel for the Placement Agent to the provisions hereof shall be deemed a representation and warranty by the Company to each Placement Agent as to the matters covered thereby.

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

(a) *Compliance with Securities Regulations and Commission Requests*. The Company, subject to Section 3(b), will comply with the requirements of Rule 430B, and will notify the Placement Agent as soon as practicable, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus (including any document incorporated by reference therein) or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any preliminary prospectus or the Prospectus, or of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the 1933 Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the 1933 Act in connection with the offering of the Securities. The Company will effect all filings required under Rule 424(b), in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company will make every reasonable effort to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

(b) *Continued Compliance with Securities Laws*. The Company will comply with the 1933 Act, the 1933 Act Regulations, the 1934 Act and the 1934 Act Regulations so as to permit the completion of the distribution of the Securities as contemplated in this Agreement and in the Registration Statement, the General Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172 of the 1933 Act Regulations (“Rule 172”), would be) required by the 1933 Act to be delivered in connection with sales of the Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Placement Agent or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) amend or supplement the General Disclosure Package or the Prospectus in order that the General Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a

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material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the General Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the 1933 Act or the 1933 Act Regulations, the Company will promptly (A) give the Placement Agent notice of such event, (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the General Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Placement Agent with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Placement Agent or counsel for the Placement Agent shall reasonably object. The Company will furnish to the Placement Agent such number of copies of such amendment or supplement as the Placement Agent may reasonably request. The Company has given the Placement Agent notice of any filings made pursuant to the 1934 Act or the 1934 Act Regulations within 48 hours prior to the Applicable Time; the Company will give the Placement Agent notice of its intention to make any such filing from the Applicable Time to the Closing Time and will furnish the Placement Agent with copies of any such documents a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Placement Agent or counsel for the Placement Agent shall reasonably object.

(c) *Delivery of Registration Statement.* The Company has furnished or will deliver to the Placement Agent and counsel for the Placement Agent, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith or incorporated by reference therein and documents incorporated or deemed incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also deliver to the Placement Agent, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for the Placement Agent. The copies of the Registration Statement and each amendment thereto furnished to the Placement Agent will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) *Delivery of Prospectuses.* The Company has delivered to each Placement Agent, without charge, as many copies of each preliminary prospectus as such Placement Agent reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Placement Agent, without charge, during the period when a prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, such number of copies of the Prospectus (as amended or supplemented) as such Placement Agent may reasonably request. The Prospectus and any amendments or supplements thereto furnished to a Placement Agent will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

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

(f) *Rule 158.* The Company will timely file such reports pursuant to the 1934 Act as are necessary in order to make generally available to its securityholders as soon as practicable an earning statement for the purposes of, and to provide to the Placement Agent the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

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(g) *Use of Proceeds.* The Company will use the net proceeds received by it from the sale of the Securities in all material respects in the manner specified in the Registration Statement, the General Disclosure Package and the Prospectus under the heading “Use of Proceeds.”

(h) *Listing.* The Company will use its reasonable best efforts to effect and maintain the listing of the Common Stock (including the Securities) on the Nasdaq Capital Market.

(i) *[Reserved]*

(j) *Reporting Requirements.* The Company, during the period when a Prospectus relating to the Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the 1933 Act, will file all documents required to be filed with the Commission pursuant to the 1934 Act within the time periods required by the 1934 Act and 1934 Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Securities as may be required under Rule 463 under the 1933 Act.

(k) *Issuer Free Writing Prospectuses.* The Company agrees that, unless it obtains the prior written consent of the Placement Agent, it will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Placement Agent will be deemed to have consented to the Issuer Free Writing Prospectuses listed on Schedule A-2 hereto and any “road show that is a written communication” within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Placement Agent. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Placement Agent as an “issuer free writing prospectus,” as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, any preliminary prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Placement Agent and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(l) *Testing-the-Waters Materials.* If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Placement Agent and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(m) *Emerging Growth Company Status.* The Company will promptly notify the Placement Agent if the Company ceases to be an Emerging Growth Company at any time prior to the completion of the distribution of the Securities within the meaning of the 1933 Act.

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#### SECTION 4. Payment of Expenses.

(a) *Expenses.* The Company will pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and each amendment thereto, (ii) the preparation, printing and delivery to the Placement Agent of copies of each preliminary prospectus, each Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Placement Agent to investors, (iii) the preparation, issuance and delivery of the certificates or security entitlements for the Securities to the Investors, including any stock or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Securities to the Investors, (iv) all fees and disbursements of counsel to the Placement Agent (including, without limitation, any fees contemplated by clauses (v) and (viii) below), the Company's counsel, accountants and other advisors, (v) the qualification of the Securities under state securities laws in accordance with Section 3(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Placement Agent in connection therewith and in connection with the preparation of a "Blue Sky Survey" and any supplement thereto, (vi) the fees and expenses of any transfer agent or registrar for the Securities, (vii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the Securities, including without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and the cost of aircraft and other transportation chartered in connection with the road show, (viii) the filing fees incident to, and the reasonable fees and disbursements of counsel to the Placement Agent in connection with, the review by FINRA of the terms of the sale of the Securities, (ix) the fees and expenses incurred in connection with the listing of the Securities on the Nasdaq Capital Market, and (x) the costs and expenses (including, without limitation, any damages or other amounts payable in connection with legal or contractual liability) associated with the reforming of any contracts for sale of the Securities made by the Placement Agent caused by a breach of the representation contained in the third sentence of Section 2(a)(ii); provided, however, that the fees and disbursements of counsel for the Placement Agent shall not exceed \$50,000, in the aggregate. Except as provided in this Section 4, Section 6 or Section 7, the Placement Agent shall pay its own expenses, including the fees and disbursements of its counsel.

(b) *Termination of Agreement.* If this Agreement is terminated by the Placement Agent in accordance with the provisions of Section 5, Section 9(a)(i), Section 9(a)(iii) or Section 10 hereof, the Company shall reimburse the Placement Agent for all of their reasonably documented out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Placement Agent.

SECTION 5. Conditions of Placement Agent's Obligations. The obligations of the Placement Agent hereunder are subject to the accuracy of the representations and warranties of the Company contained herein or in certificates of any officer of the Company or any of its Subsidiaries delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Effectiveness of Registration Statement.* The Registration Statement, including any Rule 462(b) Registration Statement, has become effective and, at the Closing Time, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the 1933 Act, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated; and the Company has complied with each request (if any) from the Commission for additional information to the reasonable satisfaction of counsel to the Placement Agent.

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(b) *Opinion of Counsel for Company.* At the Closing Time, the Placement Agent shall have received the opinion and the negative assurance letter, each dated the Closing Time, of Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo P.C., counsel for the Company, together with the opinion of McCarter & English, LLP, special counsel for the Company with respect to intellectual property matters, each in form and substance reasonably satisfactory to counsel for the Placement Agent. In giving such opinions such counsel may rely, as to all matters governed by the laws of jurisdictions other than the law of the State of New York, the General Corporation Law of the State of Delaware and the federal securities laws of the United States, upon the opinions of counsel reasonably satisfactory to the Placement Agent. Such counsel may also state that, insofar as such opinion involves factual matters, they have relied, to the extent they deem proper, upon certificates of officers and other representatives of the Company and its Subsidiaries and certificates of public officials.

(c) *Opinion of Counsel for Placement Agent.* At the Closing Time, the Placement Agent shall have received the opinion, and negative assurance letter, each dated the Closing Time, of Goodwin Procter LLP, counsel for the Placement Agent, in form and substance satisfactory to the Placement Agent. In giving such opinion such counsel may rely, as to all matters governed by the laws of jurisdictions other than the law of the State of New York, the General Corporation Law of the State of Delaware and the federal securities laws of the United States, upon the opinions of counsel reasonably satisfactory to the Placement Agent. Such counsel may also state that, insofar as such opinion involves factual matters, they have relied, to the extent they deem proper, upon certificates of officers and other representatives of the Company and its Subsidiaries and certificates of public officials.

(d) *Officers' Certificate.* At the Closing Time, there shall not have been, since the date hereof or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, and the Placement Agent shall have received a certificate of the principal executive officer of the Company and of the principal financial officer of the Company, dated the Closing Time, to the effect that (i) there has been no such material adverse change, (ii) the representations and warranties of the Company in this Agreement are true and correct with the same force and effect as though expressly made at and as of the Closing Time, (iii) the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied at or prior to the Closing Time, and (iv) no stop order suspending the effectiveness of the Registration Statement under the 1933 Act has been issued, no order preventing or suspending the use of any preliminary prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to their knowledge, contemplated.

(e) *Accountant's Comfort Letter.* At the time of the execution of this Agreement, the Placement Agent shall have received from KPMG US LLP a letter, dated such date, in form and substance satisfactory to the Placement Agent, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the General Disclosure Package and the Prospectus.

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

(g) *[Reserved]*

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(h) *Approval of Listing.* At the Closing Time, the Securities shall have been approved for listing on the Nasdaq Capital Market, subject only to official notice of issuance.

(i) *No Objection.* FINRA has confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and arrangements relating to the offering of the Securities.

(j) *[Reserved]*

(k) *[Reserved]*

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

(m) *Termination of Agreement.* If any condition specified in this Section shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Placement Agent by notice to the Company at any time at or prior to Closing Time, and such termination shall be without liability of any party to any other party except as provided in Section 4 and except that Sections 2, 4, 6, 7, 8, 14, 15 and 16 shall survive any such termination and remain in full force and effect.

#### SECTION 6. Indemnification.

(a) *Indemnification of Placement Agent.* The Company agrees to indemnify and hold harmless each Placement Agent, its affiliates (as such term is defined in Rule 501(b) under the 1933 Act (each, an "Affiliate")), its selling agents and each person, if any, who controls any Placement Agent within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or arising out of any untrue statement or alleged untrue statement of a material fact included (A) in any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto), or (B) in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or the omission or alleged omission in any preliminary prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication, the General Disclosure Package, the Prospectus (or any amendment or supplement thereto) or in any Marketing Materials of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;



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(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 6(d) below) any such settlement is effected with the written consent of the Company;

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

(b) *[Reserved]*

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

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

SECTION 7. Contribution.

(a) If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Placement Agent, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Placement Agent, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

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

(c) The relative fault of the Company, on the one hand, and the Placement Agent, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or by the Placement Agent and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

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

(e) Notwithstanding the provisions of this Section 7, no Placement Agent shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Placement Agent in connection with the Securities placed by it and distributed to the Investors.

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

(g) For purposes of this Section 7, each person, if any, who controls a Placement Agent within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act and each Placement Agent's Affiliates and selling agents shall have the same rights to contribution as such Placement Agent, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act shall have the same rights to contribution as the Company.

SECTION 8. Representations, Warranties and Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its Subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Placement Agent or its Affiliates or selling agents, any person controlling any Placement Agent, its officers or directors or any person controlling the Company and (ii) delivery of and payment for the Securities.

SECTION 9. Termination of Agreement.

(a) *Termination.* The Placement Agent may terminate this Agreement, by notice to the Company, at any time at or prior to the Closing Time (i) if there has been, in the judgment of the Placement Agent, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, any Material Adverse Effect, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in U.S. or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Placement Agent, impracticable or inadvisable to proceed with the completion of the offering or to enforce contracts for the sale of the Securities, or (iii) if trading in any securities of the Company has been suspended or materially limited by the Commission or the Nasdaq Capital Market, or (iv) if trading generally on the NYSE American or the New York Stock Exchange or in the Capital Global Market has been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by order of the Commission, FINRA or any other governmental authority, or (v) a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States or with respect to Clearstream or Euroclear systems in Europe, or (vi) if a banking moratorium has been declared by either Federal or New York authorities.

(b) *Liabilities.* If this Agreement is terminated pursuant to this Section, such termination shall be without liability of any party to any other party except as provided in Section 4 hereof, and provided further that Sections 2, 4, 6, 7, 8, 14, 15 and 16 shall survive such termination and remain in full force and effect.

SECTION 10. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Placement Agent shall be directed to Leerink at One Federal Street, Floor 37, Boston, MA 02110, attention of John I. Fitzgerald, Esq. (facsimile: 617-918-4664) with a copy to Goodwin Procter LLP, 620 Eighth Avenue, New York, NY 10018, attention of Michael Maline (facsimile: 212-355-3333) and to Synlogic, Inc., 301 Binney Street, Suite 402, Cambridge, MA 02142, attention: General Counsel with a copy to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111, fax no. 617-542-2241, Attention: Matthew J. Gardella.

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SECTION 11. No Advisory or Fiduciary Relationship. The Company hereby acknowledges that the Placement Agent is acting solely as an independent contractor with respect to providing investment banking services to the Company, including the offering of the Securities contemplated hereby (including in connection with determining the terms of the Offering). The Company further acknowledges that in no event do the parties intend that the Placement Agent act or be responsible as a fiduciary to the Company, its management, shareholders, creditors or any other person in connection with any activity that the Placement Agent may undertake or have undertaken in furtherance of the offering of the Company's securities, either before or after the date hereof. The Placement Agent hereby expressly disclaims any fiduciary or similar obligations to the Company, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Company hereby confirms its understanding and agreement to that effect. The Company and the Placement Agent agree that they are each responsible for making their own independent judgments with respect to any such transactions, and that any opinions or views expressed by the Placement Agent to the Company regarding such transactions, including but not limited to any opinions or views with respect to the price or market for the Company's securities, do not constitute advice or recommendations to the Company. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Placement Agent with respect to any breach or alleged breach of any fiduciary or similar duty to the Company in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions. The Company further acknowledges and agrees that Placement Agent has not advised, nor is advising, the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction with respect to the transactions contemplated hereby. The Company shall consult with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Placement Agent shall have no responsibility or liability to the Company with respect thereto. Any review by the Placement Agent of the Company, the transactions contemplated hereby or other matters relating to such transactions has been and will be performed solely for the benefit of the Placement Agent and has not been and shall not be performed on behalf of the Company or any other person. It is understood that the Placement Agent has not and will not be rendering an opinion to the Company as to the fairness of the terms of the Offering.

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

SECTION 13. Waiver of Trial by Jury. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and the Placement Agent 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.

SECTION 14. GOVERNING LAW. THIS AGREEMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF, THE STATE OF NEW YORK WITHOUT REGARD TO ITS CHOICE OF LAW PROVISIONS.

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SECTION 15. Consent to Jurisdiction; Waiver of Immunity. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby shall be instituted in (i) the federal courts of the United States of America located in the City and County of New York, Borough of Manhattan or (ii) the courts of the State of New York located in the City and County of New York, Borough of Manhattan (collectively, the “Specified Courts”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court, as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

SECTION 16. TIME. TIME SHALL BE OF THE ESSENCE OF THIS AGREEMENT. EXCEPT AS OTHERWISE SET FORTH HEREIN, SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME.

SECTION 17. Partial Unenforceability. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

SECTION 18. Counterparts. This Agreement may be executed in any number of counterparts (which may include counterparts delivered by any standard form of telecommunication), each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

SECTION 19. Effect of Headings. The Section headings herein are for convenience only and shall not affect the construction hereof.

SECTION 20. Entire Agreement. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Placement Agent, or any of them, with respect to the subject matter hereof.

[SIGNATURE PAGES FOLLOW]

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

Very truly yours,

SYNLOGIC, INC.

By: /s/ Todd Shegog

Name: Todd Shegog

Title: CFO

CONFIRMED AND ACCEPTED

As of the date first above written:

LEERINK PARTNERS LLC

By: /s/ Stuart R. Nayman

Name: Stuart R. Nayman

Title: Managing Director

[SIGNATURE PAGE TO PLACEMENT AGENCY AGREEMENT]

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SCHEDULE A-1

Pricing Terms

1. The Company is selling 3,280,000 shares of Common Stock.
2. The offering price per share for the Securities shall be \$9.15.
3. The Placement Agency Fee shall be \$0.2745 per share for a total of \$900,360.

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SCHEDULE A-2

Free Writing Prospectuses

None.



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SCHEDULE A-3

List of Written Testing-the-Waters Communications

None.

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SCHEDULE B

List of Subsidiaries

Synlogic Operating Company, Inc.  
Synlogic Securities Corporation  
Synlogic IBDCo, Inc.

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EXHIBIT A

FORM OF SUBSCRIPTION AGREEMENT



One Financial Center  
Boston, MA 02111  
617-542-6000  
617-542-2241 fax  
www.mintz.com

April 6, 2018

Synlogic, Inc.  
301 Binney Street, Suite 402  
Cambridge, MA 02142

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Prospectus Supplement, dated April 6, 2018, to a Prospectus dated October 25, 2017 (the "**Prospectus and Prospectus Supplement**"), filed pursuant to a Registration Statement on Form S-3, Registration No. 333-220948 (the "**Registration Statement**"), filed by Synlogic, 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**"), with respect to an aggregate of 3,280,000 shares (the "**Shares**") of its common stock, \$0.001 par value per share (the "**Common Stock**"). The Shares are to be sold pursuant to a Subscription Agreement dated April 6, 2018 by and among the Company and the Purchasers named therein (the "**Subscription Agreement**"), which will be filed as an exhibit to a Current Report on Form 8-K and incorporated by reference into the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined originals or copies, certified or otherwise identified to our satisfaction, of: (i) the Amended and Restated Certificate of Incorporation of the Company, as amended through the date hereof; (ii) the Amended and Restated Bylaws of the Company, as amended through the date hereof; (iii) certain resolutions of the Board of Directors of the Company (the "**Board**") relating to the issuance, sale and registration of the Shares; (iv) the Registration Statement, together with the exhibits thereto filed with the Commission; (v) the Prospectus and Prospectus Supplement; (vi) such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and (vii) the Subscription Agreement and the transactions contemplated thereby. In addition, we have examined originals or copies, certified or otherwise identified to our satisfaction, of certain other corporate records, documents, instruments and certificates of public officials and of the Company, and we have made such inquiries of officers of the Company and public officials and considered such questions of law as we have deemed necessary for purposes of rendering the opinions set forth herein. Our opinions are limited to the matters stated herein and no opinion is implied or may be inferred beyond the matters expressly stated. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought to independently verify such matters.

**Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.**

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April 6, 2018

Page 2

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Our opinion is limited to the General Corporation Law of the State of Delaware and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

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.

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

We understand that you wish to file this opinion with the Commission as an exhibit to a Current Report on Form 8-K for incorporation by reference into the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act and to reference the firm's name under the caption "Legal Matters" in the Prospectus Supplement, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C.

Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C.

**Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.**

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## SUBSCRIPTION AGREEMENT

This Subscription Agreement (this "Subscription") is dated April 6, 2018, by and between the investor identified on the signature page hereto (the "Investor") and Synlogic, Inc., a company incorporated and registered in the State of Delaware (the "Company"), whereby the parties agree as follows:

1. Subscription.

(a) Investor agrees to buy and the Company agrees to sell and issue to Investor (i) such number of the Company's shares of common stock (the "Shares"), \$0.001 par value per share (the "Common Shares") as set forth on the signature page hereto, for an aggregate purchase price (the "Purchase Price") equal to the product of (x) the aggregate number of Common Shares the Investor has agreed to purchase and (y) the purchase price per Common Share set forth on the signature page hereto. The Purchase Price is set forth on the signature page hereto. The Company proposes to enter into substantially this same form of Subscription Agreement with certain other investors (the "Other Investors") and expects to complete sales of the Common Shares to them. The Investor and the Other Investors are hereinafter sometimes collectively referred to as the "Investors," and this Subscription and the Subscription Agreements executed by the Other Investors are hereinafter sometimes collectively referred to as the "Subscriptions".

(b) The Common Shares have been registered on a Registration Statement on Form S-3 (Registration No. 333-220948) (the "Registration Statement"). The Registration Statement has been declared effective by the Securities and Exchange Commission (the "Commission") and is effective on the date hereof. The prospectus included in the Registration Statement at the time it was declared effective by the Commission or in the form in which it has been most recently filed with the Commission on or prior to the date of this Subscription is hereinafter called the "Base Prospectus." Any preliminary form of prospectus which is filed or used on or prior to the date hereof and prior to filing of the Prospectus (as hereinafter defined) is hereinafter called a "Preliminary Prospectus." Any reference herein to the Base Prospectus, any Preliminary Prospectus or the Prospectus or to any amendment or supplement to any of the foregoing shall be deemed to include any documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act of 1933, as amended (the "Securities Act"), and also shall be deemed to include any documents incorporated by reference therein, and any supplements or amendments thereto, filed with the Commission after the date of filing of the Prospectus pursuant to Rule 424(b) under the Securities Act, and prior to the termination of the offering of the Common Shares by the Placement Agent. A final prospectus supplement will be delivered to the Investor as required by law. Such final prospectus supplement, in the form in which it shall be filed with the Commission pursuant to Rule 424(b) (including the Base Prospectus as so supplemented) is hereinafter called the "Prospectus." The Base Prospectus and the pricing information conveyed orally to the Investor, are collectively referred to as the "Disclosure Package." The Shares shall be freely tradable on the Nasdaq Capital Market.

(c) Payment of the Purchase Price for, and delivery by the Company of, the Common Shares shall take place at a closing (the "Closing"), which shall occur no later than two (2) trading days after the date of this Subscription, subject to the satisfaction or waiver of all the conditions to the Closing (the "Company Closing Conditions") set forth in the Placement Agency Agreement (the "Placement Agreement") dated April 6, 2018 by and among the Company and the placement agent named therein (the "Placement Agent").

(d) At or prior to the Closing and promptly upon the request of the Placement Agent after the satisfaction of the Company Closing Conditions, the manner of settlement of the Common Shares purchased by the Investor shall be as follows (check one):

- A. The Company shall cause the Common Shares to be delivered to the Investor, with the delivery of the Common Shares to be made through the facilities of The Depository Trust Company's DWAC system in accordance with the instructions set forth on the signature page attached hereto under the heading "DWAC Instructions".

The Investor shall (i) direct the broker-dealer at which the account or accounts to be credited with the shares are maintained to set up a DWAC instructing the transfer agent credit such account or accounts with the Common Shares and (ii) remit by wire transfer the amount of funds equal to the Purchase Price to following account designated by the Company and the Placement Agent:

U.S. Bank, N.A.  
ABA: 091000022  
Account Number: 173103198383  
Account Name: U.S. Bank Trust Wire Account  
For final credit to account: SYNLOGIC, INC 001050993164  
Attention: Christopher L. Stewart

The Placement Agent shall have no rights in or to any of such funds, unless the Placement Agent is notified in writing by the Company in connection with the Closing that a portion of such funds shall be applied to the Placement Fee.

The Investor shall also furnish to the Placement Agent a completed W-9 form (or, in the case of an Investor who is not a United States citizen or resident, a W-8 form).

— OR

- B. Delivery versus payment ("DVP") through DTC (i.e., at Closing, the Company shall deliver the Common Shares registered in the Investor's name and address as set forth below and released by American Stock Transfer & Trust Company, LLC to the Investor through DTC at the Closing directly to the account(s) identified by the Investor (the institution at which such account(s) is/are held, the "DVP Agent"); upon receipt of such Common Shares, the DVP Agent shall promptly electronically deliver such Common Shares to the Investor, and simultaneously therewith payment shall be made by the DVP Agent by wire transfer to the Company). No later than one (1) business day after the execution of this Subscription by the Investor and the Company, the Investor shall:

(i) notify the DVP Agent of the account or accounts at the DVP Agent to be credited with the Common Shares being purchased by such Investor, and

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(ii) confirm that the account or accounts at the DVP Agent to be credited with the Common Shares being purchased by the Investor have a minimum balance equal to the aggregate purchase price for the Common Shares being purchased by the Investor.

**IT IS THE INVESTOR'S RESPONSIBILITY TO (A) MAKE THE NECESSARY WIRE TRANSFER OR CONFIRM THE PROPER ACCOUNT BALANCE IN A TIMELY MANNER AND (B) ARRANGE FOR SETTLEMENT BY WAY OF DWAC OR DVP IN A TIMELY MANNER. IF THE INVESTOR DOES NOT DELIVER THE AGGREGATE PURCHASE PRICE FOR THE COMMON SHARES OR DOES NOT MAKE PROPER ARRANGEMENTS FOR SETTLEMENT IN A TIMELY MANNER, THE COMMON SHARES MAY NOT BE DELIVERED AT CLOSING TO THE INVESTOR OR THE INVESTOR MAY BE EXCLUDED FROM THE CLOSING ALTOGETHER, AT THE COMPANY'S DISCRETION.**

2. Company Representations and Warranties.

(a) The Company represents and warrants that: (i) it has full corporate power and authority to enter into this Subscription and to perform all of its obligations hereunder; (ii) this Subscription has been duly authorized and executed by, and when delivered in accordance with the terms hereof will constitute a valid and binding agreement of, the Company enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights and remedies of creditors generally or subject to general principles of equity; (iii) the execution and delivery of this Subscription and the consummation of the transactions contemplated hereby do not conflict with or result in a breach of (x) the Company's Amended and Restated Certificate of Incorporation or other governing documents, or (y) any material agreement to which the Company is a party or by which any of its property or assets is bound; (iv) the Shares when issued and paid for in accordance with the terms of this Subscription will be duly authorized, validly issued, fully paid and non-assessable; (v) the Registration Statement and any post-effective amendment thereto, at the time it became effective, did 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; (vi) the Disclosure Package as of the date hereof does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; (vii) the final prospectus supplement relating to the Offering will not contain any material information regarding the Company other than the terms of the Offering; and (viii) all preemptive rights or rights of first refusal held by shareholders of the Company and applicable to the transactions contemplated hereby have been duly satisfied or waived in accordance with the terms of the agreements between the Company and such shareholders conferring such rights.

(b) The Placement Agreement contains certain representations, warranties, covenants and agreements of the Company that may be relied upon by the Investor, which shall be a third-party beneficiary thereof. The Company hereby incorporates such representations, warranties, covenants and agreements herein, as if made on (i) the date hereof and (ii) the date of the Closing. The Company confirms that neither it nor any other person acting on its behalf has provided the Investor or their agents or counsel with any information that constitutes or could reasonably be expected to constitute material, nonpublic information, except as disclosed in the Disclosure Package and/or as will be disclosed in the Company's Report on Form 8-K to be filed with the Commission in connection with the offering of the Common Shares. The Company understands and confirms that the Investor will rely on the foregoing representations in effecting transactions in Common Shares of the Company. After the time that the transactions contemplated by this Subscription are first publicly announced, the Investor shall have no duty of confidentiality if the Company has disclosed any material, non-public information to the Investor.



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3. Investor Representations, Warranties and Acknowledgments.

(a) The Investor represents and warrants that: (i) it has full right, power and authority to enter into this Subscription and to perform all of its obligations hereunder; (ii) this Subscription has been duly authorized and executed by the Investor and, when delivered in accordance with the terms hereof, will constitute a valid and binding agreement of the Investor enforceable against the Investor in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights and remedies of creditors generally or subject to general principles of equity; (iii) the execution and delivery of this Subscription and the consummation of the transactions contemplated hereby do not conflict with or result in a breach of (A) the Investor's articles of incorporation or bylaws (or other governing documents), or (B) any material agreement or any law or regulation to which the Investor is a party or by which any of its property or assets is bound; (iv) it has had full access to the Disclosure Package, the Company's periodic reports and other information incorporated by reference therein, and was able to read, review, download and print such materials; (v) in making its investment decision in this offering, the Investor and its advisors, if any, have relied solely on the information contained or incorporated by reference in the Disclosure Package and the representations, warranties, covenants and agreements of the Company contained herein and in the Placement Agreement; (vi) it is knowledgeable, sophisticated and experienced in making, and is qualified to make, decisions with respect to investments in Common Shares representing an investment decision like that involved in the purchase of the Common Shares; (vii) the Investor has had no position, office or other material relationship within the past three years with the Company or persons known to it to be affiliates of the Company; and (viii) neither the Investor nor any group of Investors (as identified in a public filing made with the SEC) of which the Investor is a part in connection with the offering of the Common Shares, acquired, or obtained the right to acquire, 20% or more of the Common Shares (or Common Shares convertible into or exercisable for Common Shares) or the voting power of the Company on a post-transaction basis.

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(If no exceptions, write "none." If left blank, response will be deemed to be "none.")

(b) The Investor also represents and warrants that, other than the transactions contemplated hereunder, the Investor has not directly or indirectly, nor has any person acting on behalf of or pursuant to any understanding with the Investor, executed any purchase or sale in Common Shares of the Company, including "short sales" as defined in Rule 200 of Regulation SHO under the Common Shares Exchange Act of 1934 ("Short Sales"), during the period commencing from the time that the Investor first became aware of the proposed transactions contemplated hereunder until the date hereof (the "Discussion Time"). Notwithstanding the foregoing, if the Investor is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of the Investor's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of the Investor's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Shares covered by this Subscription. The Investor has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction).

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4. Investor Covenant Regarding Short Sales and Confidentiality.

(a) The Investor covenants that neither it nor any affiliates acting on its behalf or pursuant to any understanding with it will execute any transactions in Common Shares of the Company, including Short Sales, during the period after the Discussion Time and ending at the time that the transactions contemplated by this Subscription are first publicly announced through a press release and/or Current Report on Form 8-K. Notwithstanding the foregoing, if the Investor is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of the Investor's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of the Investor's assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Shares covered by this Subscription. The Investor covenants that until such time as the transactions contemplated by this Subscription are publicly disclosed by the Company through a press release and/or Current Report on Form 8-K, the Investor will maintain the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction).

(b) The Company and the Investor agree that the Company shall no later than 9:00 a.m. New York City time on the date hereof, (a) issue a press release announcing the material terms and conditions of the offering and (b) file a Current Report on Form 8-K with the Commission including, but not limited to, a form of this Agreement and the Placement Agreement as exhibits thereto. From and after the issuance of such press release, the Company shall have publicly disclosed all material, non-public information delivered to the Investor by the Company, or any of its officers, directors, agents, including the Placement Agent, or any other person acting on its behalf. The Company shall not provide the Investor with any material, non-public information following the issuance of the press release. The Company shall not be permitted to identify the Investor, or investment adviser to the Investor, by name in any press release without the prior written consent of the Investor.

5. Miscellaneous.

(a) This Subscription constitutes the entire understanding and agreement between the parties with respect to its subject matter, and there are no agreements or understandings with respect to the subject matter hereof which are not contained in this Subscription. This Subscription may be modified only in writing signed by the parties hereto.

(b) This Subscription may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and shall become effective when counterparts have been signed by each party and delivered to the other parties hereto, it being understood that all parties need not sign the same counterpart. Execution may be made by delivery by facsimile.

(c) The provisions of this Subscription are severable and, in the event that any court or officials of any regulatory agency of competent jurisdiction shall determine that any one or more of the provisions or part of the provisions contained in this Subscription shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision or part of a provision of this Subscription and this Subscription shall be reformed and construed as if such invalid or illegal or unenforceable provision, or part of such provision, had never been contained herein, so that such provisions would be valid, legal and enforceable to the maximum extent possible, so long as such construction does not have a materially adverse effect on the economic rights of either party hereto.

(d) All communications hereunder, except as may be otherwise specifically provided herein, shall be in writing and shall be mailed, hand delivered, sent by a recognized overnight courier service such as Federal Express, or sent via facsimile and confirmed by letter, to the party to whom it is addressed at the following addresses or such other address as such party may advise the other in writing:

To the Company: as set forth on the signature page hereto.

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To the Investor: as set forth on the signature page hereto.

All notices hereunder shall be effective upon receipt by the party to which it is addressed.

(e) This Subscription shall be governed by and interpreted in accordance with the laws of the State of New York for contracts to be wholly performed in such state and without giving effect to the principles thereof regarding the conflict of laws. To the extent determined by such court, the prevailing party shall reimburse the other party for any reasonable legal fees and disbursements incurred in enforcement or protection of any of its rights under this Subscription.

(f) The Placement Agent shall be an express third party beneficiary to each representation and warranty delivered by the Investor pursuant to this Subscription, and shall be entitled to rely thereon.

(g) Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement.

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If the foregoing correctly sets forth our agreement, please confirm this by signing and returning to us the duplicate copy of this Subscription.

SYNLOGIC, INC.

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

Name:

Title:

Address for Notice:

301 Binney Street, Suite 402  
Cambridge, MA 02142  
Attention: General Counsel

With a copy to:

Mintz, Levin, Cohn,  
Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Matthew J. Gardella  
Facsimile: 617-542-2241

*[Issuer's Signature Page to Subscription Agreement]*

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**INVESTOR:** \_\_\_\_\_

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

Name:

Title:

**Number of Shares:** \_\_\_\_\_

**Purchase Price per Share:** \$ \_\_\_\_\_

**Aggregate Purchase Price:** \$ \_\_\_\_\_

DWAC Instructions:

Name of DTC Participant (broker-dealer at which the account or accounts to be credited with the Shares are maintained):

\_\_\_\_\_

DTC Participant Number:

\_\_\_\_\_

Name of Account at DTC Participant being credited with the Shares:

\_\_\_\_\_

Account Number at DTC Participant being credited with the Shares:

\_\_\_\_\_

*[Investor's Signature Page to Subscription Agreement]*



### Synlogic Announces Registered Direct Offering of Common Stock

**Cambridge, Mass. (Business Wire) April 6, 2018** – Synlogic, Inc. (Nasdaq: SYBX), a clinical-stage company applying synthetic biology to probiotics to develop novel living medicines, today announced that it has agreed to sell 3,280,000 shares of its common stock to a large mutual fund investor in a registered direct offering. Synlogic anticipates aggregate gross proceeds from the offering will be approximately \$30.0 million based on the offering price of \$9.15 per share. The offering is expected to close on or about April 10, 2018, subject to customary closing conditions. Leerink Partners served as sole placement agent for the Company in connection with the offering.

Synlogic intends to use the net proceeds from the offering, together with its existing cash and cash equivalents, as follows: to fund its two planned Phase 1b/2a clinical trials of SYN1020 (one study involving HE patients and the other study involving UCD patients) through completion; to fund activities in process development, formulation and toxicology as needed for subsequent initiation of a Phase 2b clinical trial in patients with liver cirrhosis with elevated blood ammonia; to fund its planned Phase 1/2a clinical trial of SYN1618 through completion and to support acceleration of a Phase 2b clinical trial of SYN1618 for PKU patients and continued process development and formulation activities; to fund further preclinical development in its immuno-oncology programs and drug discovery activities in its other programs; and for working capital and general corporate purposes.

The securities described above are being offered by Synlogic pursuant to its shelf registration statement on Form S-3 (File No. 333-220948) filed with the Securities Exchange Commission (the "SEC") on October 13, 2017 and declared effective by the SEC on October 25, 2017. A prospectus supplement and the accompanying prospectus relating to the offering will be filed with the SEC. Copies of the prospectus supplement and the accompanying prospectus relating to this offering may be obtained, when available, on the SEC's website at <http://www.sec.gov> or by contacting Leerink Partners LLC, Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, by telephone at (800) 808-7525 ext. 6132 or by email at [syndicate@leerink.com](mailto:syndicate@leerink.com)

This press release shall not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities, in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction. Any offering of the securities under the resale registration statement will only be by means of a prospectus.



### **About Synlogic**

Synlogic is pioneering the development of a novel class of living medicines, Synthetic Biotic™ medicines, based on its proprietary drug development platform. Synlogic's initial pipeline includes Synthetic Biotic medicines for the treatment of phenylketonuria (PKU) and hyperammonemia, including urea cycle disorders (UCD). In addition, the company is leveraging the broad potential of its platform to create Synthetic Biotic medicines for the treatment of more common diseases, including liver disease, inflammatory and immune disorders, and cancer. Synlogic is collaborating with AbbVie to develop Synthetic Biotic-based treatments for inflammatory bowel disease (IBD).

### **Forward-Looking Statements**

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding Synlogic's ability to complete the offering and its expected and intended use of proceeds from the offering. These forward-looking statements speak only as of the date of this press release and are subject to a number of risks, uncertainties and assumptions, including the risks and uncertainties associated with market conditions and the satisfaction of customary closing conditions related to the proposed public offering, as well as risks and uncertainties inherent in Synlogic's business, including those described in the company's periodic filings with the SEC. The events and circumstances reflected in the company's forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Additional information on risks facing Synlogic can be found under the heading "Risk Factors" in Synlogic's periodic reports, including its annual report on Form 10-K for the year ended December 31, 2017, and in the prospectus supplement related to the offering to be filed with the SEC on or about the date hereof, each available on the SEC's web site at [www.sec.gov](http://www.sec.gov). Except as required by applicable law, the company does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

### **MEDIA CONTACT:**

Courtney Heath  
Phone: 617-872-2462  
Email: [courtney@scientpr.com](mailto:courtney@scientpr.com)

### **INVESTOR CONTACT:**

Elizabeth Wolffe, Ph.D.  
Phone: 617-207-5509  
Email: [liz@synlogictx.com](mailto:liz@synlogictx.com)

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