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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Form 8-K**

**Current Report**

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

Date of Report (Date of earliest event reported): **May 31, 2018**

**Vericel Corporation**

(Exact name of registrant as specified in its charter)

**001-35280**

(Commission File Number)

**Michigan**

(State or other jurisdiction of  
incorporation)

**94-3096597**

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

**64 Sidney Street**

**Cambridge, Massachusetts 02139**

(Address of principal executive offices, with zip code)

**(800) 556-0311**

(Registrant's telephone number, including area code)

**Not Applicable**

(Former name or former address, if changed since last report)

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

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

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

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

On May 31, 2018, Vericel Corporation (the “Company,” “Vericel” or “we”) entered into an underwriting agreement (“Underwriting Agreement”) with Leerink Partners LLC, as representative of the underwriters named therein (the “Underwriters”), relating to the issuance and sale of 5,000,000 shares of the Company’s common stock, at a price to the public of \$13.00 per share (the “Offering”). Pursuant to the Underwriting Agreement, the Underwriters have agreed to purchase the shares from us at a price of \$12.22 per share. The gross proceeds to Vericel from this offering are expected to be approximately \$65 million, before deducting the underwriting discounts and commissions and estimated offering expenses payable by Vericel. The offering is expected to close on or about June 5, 2018, subject to customary closing conditions. In addition, under the terms of the Underwriting Agreement, we have granted the Underwriters a 30-day option to purchase up to an additional 750,000 shares of common stock on the same terms and conditions.

The Underwriting Agreement contains customary representations, warranties and agreements by us, customary conditions to closing, indemnification obligations of Vericel and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

The Offering is being made pursuant to the Company’s effective shelf registration statement on Form S-3 (Registration Statement No. 333-205336), including the prospectus dated July 15, 2015, contained therein, and the related prospectus supplement.

A copy of the Underwriting Agreement is filed as Exhibit 1.1 to this report, and the foregoing description of the Underwriting Agreement does not purport to be complete and is qualified in its entirety by reference to such exhibit. A copy of the opinion of Dykema Gossett PLLC relating to the legality of the issuance and sale of the securities in these offerings is attached as Exhibit 5.1 hereto.

The Company issued press releases on May 30, 2018 and May 31, 2018 announcing the commencement of the Offering and the pricing of the Offering, respectively, which press releases are attached as Exhibits 99.1 and 99.2, respectively, to this report.

**Item 9.01. Exhibits.**

**(d) Exhibits.**

<u>Exhibit No.</u>	<u>Description</u>
1.1	Underwriting Agreement by and between Vericel Corporation and Leerink Partners LLC, as representative of the underwriters named therein, dated May 31, 2018
5.1	Opinion of Dykema Gossett PLLC
23.1	Consent of Dykema Gossett PLLC (included in Exhibit 5.1)
99.1	Press Release dated May 30, 2018
99.2	Press Release dated May 31, 2018

## Exhibit Index

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99.2	<a href="#"><u>Press Release dated May 31, 2018</u></a>

**SIGNATURES**

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

**VERICEL CORPORATION**

Date: June 1, 2018

By: /s/ Gerard Michel  
Name: Gerard Michel  
Title: Chief Financial Officer and Vice President Corporate Development

VERICEL CORPORATION

(a Michigan corporation)

5,000,000 Shares of Common Stock

**UNDERWRITING AGREEMENT**

May 31, 2018

Leerink Partners LLC  
as Representative of the several Underwriters

c/o Leerink Partners LLC  
299 Park Avenue, 21st floor  
New York, NY 10176

Ladies and Gentlemen:

VERICEL CORPORATION, a Michigan corporation (the "Company"), confirms its agreement with Leerink Partners LLC ("Leerink") and each of the other Underwriters named in Schedule A hereto (collectively, the "Underwriters," which term shall also include any underwriter substituted as hereinafter provided in Section 10 hereof), for which Leerink is acting as representative (in such capacity, the "Representative"), with respect to (i) the sale by the Company and the purchase by the Underwriters, acting severally and not jointly, of the respective numbers of shares of common stock, no par value per share, of the Company ("Common Stock") set forth in Schedule A hereto and (ii) the grant by the Company to the Underwriters, acting severally and not jointly, of the option described in Section 2(b) hereof to purchase all or any part of 750,000 additional shares of Common Stock. The aforesaid 5,000,000 shares of Common Stock (the "Initial Securities") to be purchased by the Underwriters and all or any part of the 750,000 shares of Common Stock subject to the option described in Section 2(b) hereof (the "Option Securities") are herein called, collectively, the "Securities."

The Company understands that the Underwriters propose to make a public offering of the Securities as soon as the Representative deems advisable after this Underwriting Agreement (this "Agreement") has been executed and delivered.

The Company has filed with the Securities and Exchange Commission (the "Commission") a shelf registration statement on Form S-3 (No. 333-205336), 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 July 15, 2015. Such registration statement, as of any time, means such registration statement as amended by any post-effective amendments thereto to 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

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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 is herein called the “Rule 462(b) Registration Statement” and, after such filing, the term “Registration 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 Underwriters 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 7:35 P.M., New York City time, on May 31, 2018 or such other time as agreed by the Company and the Representative.

“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 B-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 B-2 hereto.

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

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 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, and the rules and regulations promulgated thereunder (collectively, the “1934 Act”), 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 1. Representations and Warranties.

(a) *Representations and Warranties by the Company.* The Company represents and warrants to each Underwriter as of the date hereof, the Applicable Time, the Closing Time (as defined below) and any Date of Delivery (as defined below), and agrees with each Underwriter, 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 Underwriters 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 Underwriters 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 rules and regulations of the Commission under the 1934 Act (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 nor (B) any individual Issuer Limited Use Free Writing Prospectus, 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 or at any Date of Delivery, 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.

The representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement (or any amendment thereto), the General Disclosure Package or the Prospectus (or any amendment or supplement thereto, including any prospectus wrapper) made in reliance upon and in conformity with written information furnished to the Company by any Underwriter expressly for use therein. For purposes of this Agreement, the only information so furnished shall be the information contained in the first paragraph under the heading “Underwriting—Commissions and Discounts”, second, third and fourth paragraphs under the heading “Underwriting—Price Stabilization, Short Positions and Penalty Bids” and the information under the heading “Underwriting—Electronic Distributions,” in each case contained in the Prospectus (collectively, the “Underwriter Information”).

(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 B-2 hereto, and electronic road shows, if any, each furnished to the Representative before first use, the Company has not prepared, used or referred to, and will not, without the prior consent of the Representative, prepare, use or refer to, any issuer free writing prospectus. Any offer that is a written communication relating to the Securities made prior to the initial filing of the Registration Statement by the Company or any person acting on its behalf (within the meaning, for this paragraph only, of Rule 163(c) of the 1933 Act Regulations) has been filed with



the Commission in accordance with the exemption provided by Rule 163 under the 1933 Act Regulations (“Rule 163”) and otherwise complied with the requirements of Rule 163, including without limitation the legending requirement, to qualify such offer for the exemption from Section 5(c) of the 1933 Act provided by Rule 163.

(iv) Reserved.

(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) No Distribution of Offering Materials. The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the proposed offering and sale of the Securities other than any preliminary prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 3(a) below. The Company will file with the Commission all Issuer Free Writing Prospectuses (other than a “road show,” as described in Rule 433(d)(8) of the Rules and Regulations) in the time and manner required under Rules 163(b)(2) and 433(d) of the Rules and Regulations.

(vii) Independent Accountants. PricewaterhouseCoopers LLP (“PwC”), which has certified certain financial statements included or incorporated by reference in the Registration Statements, the General Disclosure Package and the Prospectus, and has audited the effectiveness of the Company’s internal control over financial reporting, is (x) an independent registered public accounting firm within the meaning of Article 2-01 of Regulation S-X and the Public Company Accounting Oversight Board (United States) (the “PCAOB”), (y) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof (the “Sarbanes-Oxley Act”)) and (z) in the performance of its work for the Company, was not in violation of the auditor independence requirements of the Sarbanes-Oxley Act.

(viii) Financial Statements; Non-GAAP Financial Measures. The financial statements, together with the related notes and schedules, included or incorporated by reference in the General Disclosure Package, the Prospectus and in each Registration Statement, fairly present in all material respects the financial position and the results of operations and changes in financial position of the Company and its consolidated subsidiaries at the respective dates or for the respective periods therein specified. Such statements and related notes have been prepared in accordance with the generally accepted accounting principles in the United States (“GAAP”) applied on a consistent basis throughout the periods involved except as may be set forth in the related notes included or incorporated by reference in the General Disclosure Package. The financial statements, together with the related notes, included or incorporated by reference in the General Disclosure Package and the Prospectus comply in all material respects with Regulation S-X. No other financial statements or supporting schedules or exhibits are required by Regulation S-X to be described or incorporated by reference in the Registration Statements, the General Disclosure Package or the Prospectus. The selected financial data included or incorporated by reference in the General Disclosure Package, the Prospectus and each Registration Statement fairly present in all material respects the information shown therein as at the respective dates and

for the respective periods specified and are derived from the consolidated financial statements incorporated by reference in the Registration Statement, the Prospectus and the Prospectus and other financial information. All information contained in the Registration Statement, the General Disclosure Package and the Prospectus regarding “non-GAAP financial measures” (as defined in Regulation G) complies with Regulation G and Item 10 of Regulations S-K, to the extent applicable. Except as disclosed in the General Disclosure Package and the Prospectus, there are no material off-balance sheet arrangements (as defined in Regulation S-K under the Securities Act, Item 303(a)(4)(ii)) or any other relationships with unconsolidated entities or other persons, that may have a material current or material future effect on the Company’s financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of revenue or expenses.

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

(x) Compliance with the Sarbanes-Oxley Act of 2002. Except as described in the General Disclosure Package and the Prospectus, there is and has been no failure on the part of the Company or, to their knowledge, any of the Company’s officers or directors, in their capacities as such, to comply in all material respects with any 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.

(xi) Good Standing and Subsidiaries. The Company and each of its subsidiaries (collectively, the “Subsidiaries”) have been duly organized and are validly existing as corporations or other legal entities in good standing (or the foreign equivalent thereof) under the laws of their respective jurisdictions of organization. The Company and each of its Subsidiaries are duly qualified to do business and are in good standing, or validly existing as the case may be, as foreign corporations or other legal entities in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification and have all power and authority (corporate or other) necessary to own or hold their respective properties and to conduct the businesses in which they are engaged, except where the failure to so qualify or have such power or authority would not (i) have, singularly or in the aggregate, a material adverse effect on the condition (financial or otherwise), results of operations, assets, business or prospects of the Company and its Subsidiaries taken as a whole, or (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by this Agreement, including the issuance or sale of the Securities by the Company (any such effect as described in clauses (i) or (ii), a “Material Adverse Effect”). Other than ownership of its subsidiaries, Marrow Donation, LLC and Vericel Denmark ApS, the Company does not own or control, directly or indirectly, any interest in any corporation, partnership, limited liability partnership, limited liability company, association or other entity. All the outstanding shares of capital stock (if any) of each Subsidiary of the Company have been duly authorized and validly issued, are fully paid and nonassessable and, except to the extent set forth in the General Disclosure Package or the Prospectus, are owned by the Company directly or indirectly through one or more wholly-owned subsidiaries, free and clear of any claim, lien, encumbrance, security interest, restriction upon voting or transfer or any other claim of any third party. Except as described in the General Disclosure Package and the Prospectus, no Subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, from paying any dividends to the Company, from making any other distribution on such Subsidiary’s capital stock, from

repaying to the Company any loans or advances to such Subsidiary from the Company or from transferring any of such Subsidiary's properties or assets to the Company or any other Subsidiary of the Company.

(xii) Capitalization. The Company has an authorized capitalization as set forth under the heading "Description of Capital Stock" in the Prospectus, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable, have been issued in compliance with federal and state securities laws and conform in all material respects to the description thereof contained in the General Disclosure Package and the Prospectus. As of March 31, 2018, there were 36,501,816 shares of Common Stock issued and outstanding and 6,156,753 shares of Common Stock were issuable upon the exercise of all options, warrants and convertible securities outstanding as of such date. Since such date, the Company has not issued any securities other than Common Stock of the Company issued pursuant to the exercise of stock options previously outstanding under the Company's stock option plans and the exercise of warrants previously issued to warrant holders. All of the Company's options, warrants and other rights to purchase or exchange any securities for shares of the Company's capital stock have been duly authorized and validly issued and were issued in compliance with federal and state securities laws. None of the outstanding shares of Common Stock was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding shares of capital stock, options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any of its Subsidiaries other than those described above or accurately described in the General Disclosure Package. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the General Disclosure Package and the Prospectus, accurately and fairly present the information required to be shown with respect to such plans, arrangements, options and rights.

(xiii) No Material Adverse Effect. Neither the Company nor any of its Subsidiaries has sustained, since the date of the latest audited financial statements included or incorporated by reference in the General Disclosure Package, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the General Disclosure Package; and, since such date, there has not been any change in the capital stock or long-term debt of the Company or any of its Subsidiaries, or any Material Adverse Effect or any development which would reasonably be expected to result in any Material Adverse Effect, otherwise than as set forth or contemplated in the General Disclosure Package.

(xiv) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company and constitutes a valid, legal and binding obligation of the Company, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity. The Company has full corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby, including the authorization, issuance and sale of the Securities as contemplated by this Agreement.

(xv) Authorization and Description of Securities. The Securities to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued, fully paid and nonassessable and free of any preemptive or similar rights and will conform to the description thereof contained in the General Disclosure Package and the Prospectus.

(xvi) Registration Rights. No person or entity has the right to require registration of shares of Common Stock or other securities of the Company or any of its Subsidiaries because of the filing or effectiveness of the Registration Statements or otherwise, other than as disclosed in the General Disclosure Package and except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the General Disclosure Package, there are no persons with registration rights or similar rights to have any securities registered by the Company or any of its Subsidiaries under the Securities Act.

(xvii) No Material Liability or Obligation. Since the date as of which information is given in the General Disclosure Package and the Prospectus through the date hereof, and except as set forth in the Prospectus, neither the Company nor any of its Subsidiaries has (i) issued or granted any securities other than options to purchase common stock pursuant to the Company's stock option plan, (ii) incurred any material liability or obligation, direct or contingent, other than liabilities and obligations which were incurred in the ordinary course of business, (iii) entered into any material transaction other than in the ordinary course of business, or (iv) declared or paid any dividend on its capital stock.

(xviii) Absence of Violations, Defaults and Conflicts. The execution, delivery and performance of this Agreement by the Company, the issue and sale of the Securities by the Company and the consummation of the transactions contemplated hereby will not (with or without notice or lapse of time or both) (i) conflict with or result in a breach or violation of any of the terms or provisions of, constitute a default or a Debt Repayment Triggering Event (as defined below) under, give rise to any right of termination or other right or the cancellation or acceleration of any right or obligation or loss of a benefit under, or give rise to the creation or imposition of any lien, encumbrance, security interest, claim or charge upon any property or assets of the Company or any Subsidiary pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its Subsidiaries is bound or to which any of the property or assets of the Company or any of its Subsidiaries is subject, (ii) result in any violation of the provisions of the articles of incorporation or by-laws (or analogous governing instruments, as applicable) of the Company or any of its Subsidiaries or (iii) result in any violation of the provisions of any law, statute, rule, regulation, judgment, order or decree of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any of its Subsidiaries or any of their properties or assets; except, in the case of clause (iii), to the extent that such event is not reasonably expected to have a Material Adverse Effect. A "Debt Repayment Triggering Event" means any event or condition that gives, or with the giving of notice or lapse of time would give the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its Subsidiaries. Neither the Company nor any of its Subsidiaries (a) is in violation of its charter or by-laws (or analogous governing instrument, as applicable), (b) is in default in any respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any

indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it is bound or to which any of its material property or assets is subject (including, without limitation, those administered by the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA), (c) is in violation in any respect of any law, ordinance, governmental rule, regulation or court order, decree or judgment to which it or its property or assets may be subject, including the Sarbanes-Oxley Act; or (d) is in violation of any applicable corporate governance requirements set forth in the rules of the Exchange; except, in the case of clauses (b), (c) and (d) of this paragraph (xviii), for any violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect.

(xix) Absence of Further Requirements. No consent, approval, authorization or order of, or filing, qualification or registration (each an “Authorization”) with, any court, governmental or non-governmental agency or body, foreign or domestic, which has not been made, obtained or taken and is not in full force and effect, is required for the execution, delivery and performance of this Agreement by the Company, the offer or sale of the Securities or the consummation of the transactions contemplated hereby, except for (i) the registration of the Securities under the Securities Act Exchange Act and applicable state securities laws, the Financial Industry Regulatory Authority (“FINRA”) and the Nasdaq Capital Market (the “Exchange”) in connection with the purchase and distribution of the Securities by the Underwriters and the listing of the Securities on the Exchange and (ii) such Authorizations (other than those set forth in clause (i)), the failure of which to obtain or make is not reasonably expected to have a Material Adverse Effect. No event has occurred that allows or results in, or after notice or lapse of time or both would allow or result in, revocation, suspension, termination or invalidation of any such Authorization or any other impairment of the rights of the holder or maker of any such Authorization. All corporate approvals (including those of stockholders) necessary for the Company to consummate the transactions contemplated by this Agreement have been obtained and are in effect.

(xx) Occupational Laws. The Company and each of its Subsidiaries (i) is in compliance, in all material respects, with any and all applicable foreign, federal, state and local laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act) relating to the protection of human health and safety in the workplace (“Occupational Laws”), (ii) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct its business as currently conducted and (iii) is in compliance, in all material respects, with all terms and conditions of such permit, license or approval. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company’s knowledge, threatened against the Company or any of its Subsidiaries relating to Occupational Laws.

(xxi) FINRA Matters. If applicable, all of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its officers and directors and the holders of any securities (debt or equity) or options to acquire any securities of the Company in connection with letters, filings or other supplemental information provided to FINRA pursuant to NASD Conduct rule 2710 or 2720 is, to the Knowledge of the Company, true, correct and complete. Neither the Company nor any of its affiliates (within the meaning of FINRA Rule 5121(f)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA.

(xxii) Forward-looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(xxiii) Reporting Requirements. The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act and is listed on the Exchange, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Exchange, nor has the Company received any notification that the Commission or FINRA is contemplating terminating such registration or listing. The Company has filed a notification of the listing of the Securities on the Exchange.

(xxiv) Liquidity. There are no transactions, arrangements or other relationships between and/or among the Company, any of its affiliates (as such term is defined in Rule 405 of the Rules and Regulations) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's liquidity or the availability of or requirements for its capital resources required to be described in the General Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

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

(xxvi) Absence of Labor Disputes. There is (i) no significant unfair labor practice complaint pending against the Company, or any of its Subsidiaries, nor to the Knowledge of the Company, threatened against it or any of its Subsidiaries, before the National Labor Relations Board, any state or local labor relation board or any foreign labor relations board, and no significant grievance or significant arbitration proceeding arising out of or under any collective bargaining agreement is so pending against the Company or any of its Subsidiaries, or, to the Knowledge of the Company, threatened against it and (ii) no strike, lockout, work stoppage, slowdown, union organizing campaign, union demand for recognition or union election petition is pending or, to the Company's Knowledge, threatened, with respect to the employees of the Company or any of its subsidiaries, and, to the Company's Knowledge, there is no existing or imminent strike, lockout, work stoppage or slowdown by the employees of its Subsidiaries' principal suppliers, manufacturers, customers or contractors, that would reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. Other than as disclosed to the Underwriters, no key employee or significant group of employees of the Company or any Subsidiary has provided, or to the Company's Knowledge, plans to provide, written notice to the Company of intent to terminate employment with the Company or any such Subsidiary.

(xxvii) ERISA. No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "Code")) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan (as defined in Section 3(3) of ERISA) of the Company or any of its Subsidiaries which could, singularly or in the aggregate, have a Material Adverse Effect. Each

employee benefit plan (as defined in Section 3(3) of ERISA) of the Company or any of its Subsidiaries is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and its Subsidiaries have not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in Section 3(2) of ERISA). Each pension plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and to the Company's Knowledge, nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification.

(xxviii) No Outstanding Loans or Advances. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees of indebtedness by the Company or any of its Subsidiaries to or for the benefit of any of the officers or directors of the Company, any of its Subsidiaries or any of their respective family members, except as disclosed in the Registration Statements, the General Disclosure Package and the Prospectus. All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof, if and to the extent required under U.S. law.

(xxix) Insolvency. The Company and its Subsidiaries, individually and on a consolidated basis, are not as of the date hereof, and after giving effect to the transactions contemplated hereby to occur at the Closing Time, will not be Insolvent (as defined below). For purposes of this paragraph (xxix), "**Insolvent**" means, with respect to any person, (i) the present fair saleable value of such person's assets is less than the amount required to pay such person's total indebtedness, (ii) such person is unable to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured, (iii) such person intends to incur or believes that it will incur debts that would be beyond its ability to pay as such debts mature or (iv) such person has unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted.

(xxx) Absence of Proceedings. Except as set forth in the General Disclosure Package, there is no legal or written governmental proceeding to which the Company or any of its Subsidiaries is a party or of which any property or assets of the Company or any of its Subsidiaries or any officer or director of the Company, in their roles as such, or any employee benefit plan sponsored by the Company is the subject, including any proceeding before the United States Food and Drug Administration of the U.S. Department of Health and Human Services ("**FDA**") or comparable federal, state, local or foreign governmental bodies (it being understood that the interaction between the Company and the FDA and such comparable governmental bodies relating to the clinical development and product approval process shall not be deemed proceedings for purposes of this representation), which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or any of its Subsidiaries, could reasonably be expected to have a Material Adverse Effect; and to the best of the Company's knowledge ("**Knowledge**"), no such proceedings are threatened or contemplated by governmental authorities or threatened by others. The Company is in compliance with all applicable federal, state, local and foreign laws, regulations, orders and decrees governing its business as prescribed by the FDA, or any other federal, state or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials, except where noncompliance would not, singly or in the aggregate, have a Material Adverse Effect. All preclinical and clinical studies conducted by or on behalf of the Company to support approval for commercialization of the

Company's products have been conducted by the Company, or to the Company's Knowledge by third parties, in compliance with all applicable federal, state or foreign laws, rules, orders and regulations, except for such failure or failures to be in compliance as could not reasonably be expected to have, singly or in the aggregate, a Material Adverse Effect. To the Knowledge of the Company, and except as would not, individually or in the aggregate, have a Material Adverse Effect, the Company's manufacturing facilities and operations are in compliance with applicable regulations of the FDA, including current Good Manufacturing Practices. Each of the Company and its Subsidiaries (i) has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA or any other governmental authority alleging or asserting noncompliance with any statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company ("Applicable Laws") or Permits; (ii) 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 Permits; and (iii) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post sale warning, "dear doctor" letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company's knowledge, no third party has initiated, conducted or intends to initiate any such notice or action; except, in the case of each of (i), (ii) and (iii), as would not, individually or in the aggregate, have a Material Adverse Effect.

(xxx1) Accuracy of Exhibits. There are no statutes or regulations that are material to the business of the Company and that are required to be described in the Registration Statement, in the General Disclosure Package and in the Prospectus or required to be filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations that have not been so described or filed. There is no franchise agreement, lease, contract, or other agreement or document required by the Securities Act or by the Rules and Regulations to be described in the General Disclosure Package and in the Prospectus or a document incorporated by reference therein or to be filed as an exhibit to the Registration Statements or a document incorporated by reference therein which is not so described or filed therein as required; and all descriptions of any such franchise agreements, leases, contracts, or other agreements or documents contained in the General Disclosure Package and in the Prospectus or in a document incorporated by reference therein are accurate and complete descriptions of such documents in all material respects. Other than as described in the General Disclosure Package, no such franchise agreement, lease, contract or other agreement has been suspended or terminated for convenience or default by the Company or any of the other parties thereto, and neither the Company nor any of its Subsidiaries has received notice of and the Company does not have Knowledge of any such pending or threatened suspension or termination, except for such suspensions or terminations or pending or threatened suspensions or terminations that would not reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect.

(xxxii) Market Capitalization. Within 60 days prior to the filing of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, the aggregate market value of the Company's voting and non-voting common equity held by non-affiliates was \$75,000,000 or more.

(xxxiii) Development and Manufacturing Rights. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, neither the Company nor any of



its subsidiaries has granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its product candidates to any other person and is not bound by any agreement that affects the exclusive right of the Company to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

(xxxiv) Possession of Licenses and Permits. The Company and each of its Subsidiaries possess all licenses, certificates, authorizations and permits issued by, and have made all declarations and filings with, the appropriate local, state, federal or foreign regulatory agencies or bodies (including, without limitation, those administered by the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) which are necessary for the ownership of their respective properties or the conduct of their respective businesses as described in the General Disclosure Package and the Prospectus (collectively, the “Governmental Permits”) except where any failures to possess or make the same, singularly or in the aggregate, would not have a Material Adverse Effect. The Company and its Subsidiaries are in compliance with all such Governmental Permits and all such Governmental Permits are valid and in full force and effect, except where the noncompliance, validity or failure to be in full force and effect would not, singularly or in the aggregate, have a Material Adverse Effect. Neither the Company nor any Subsidiary has received written notification of any revocation, modification, suspension, termination or invalidation (or proceedings related thereto) of any such Governmental Permit and to the Knowledge of the Company, no event has occurred that allows or results in, or after notice or lapse of time or both would allow or result in, revocation, modification, suspension, termination or invalidation (or proceedings related thereto) of any such Governmental Permit and the Company has no reason to believe that any such Governmental Permit will not be renewed. The studies, tests and preclinical or clinical trials conducted by or on behalf of the Company that are described in the General Disclosure Package and the Prospectus (the “Company Studies and Trials”) were and, if still pending, are being, conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to, where applicable, accepted professional scientific standards; the descriptions of the results of the Company Studies and Trials contained in the General Disclosure Package and Prospectus are accurate in all material respects; the Company has not received any written notices or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority requiring the termination, suspension or material modification of any Company Studies or Trials that would reasonably be expected to have a Material Adverse Effect; and the Company is not aware of any studies, tests or trials the results of which the Company believes reasonably call into question the study, test, 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 the clinical state of development. For the avoidance of doubt, the Company makes no representation or warranty that the results of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company will be sufficient to obtain governmental approval from the FDA or any foreign, state or local governmental body exercising comparable authority or that additional studies, tests or preclinical or clinical trials will reach similar results or conclusions.

(xxxv) Title to Property. The Company and each of its Subsidiaries have good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and its Subsidiaries taken as a whole, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singularly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of 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 any

of its Subsidiaries holds properties described in the General Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any 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.

(xxxvi) Title to Intellectual Property. The Company and its Subsidiaries own or possess the right to use all (i) valid and enforceable patents, patent applications, trademarks, trademark registrations, service marks, service mark registrations, Internet domain name registrations, copyrights, copyright registrations, licenses, trade secret rights (“Intellectual Property Rights”) and (ii) inventions, software, works of authorships, trademarks, service marks, trade names, databases, formulae, know how, Internet domain names and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary confidential information, systems, or procedures) (collectively, “Intellectual Property Assets”) necessary to conduct their respective businesses as currently conducted, and as proposed to be conducted and described in the General Disclosure Package and the Prospectus. The Company and its Subsidiaries have not received any opinion from their legal counsel concluding that any activities of their respective businesses infringe, misappropriate, or otherwise violate, valid and enforceable Intellectual Property Rights of any other person, and have not received written notice of any challenge, which is to their Knowledge still pending, by any other person to the rights of the Company and its Subsidiaries with respect to any Intellectual Property Rights or Intellectual Property Assets owned or used by the Company or its subsidiaries. To the Knowledge of the Company, the Company and its Subsidiaries’ respective businesses as now conducted do not give rise to any infringement of, any misappropriation of, or other violation of, any valid and enforceable Intellectual Property Rights of any other person. All licenses for the use of the Intellectual Property Rights described in the General Disclosure Package and the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance to its terms. The Company has complied in all material respects with, and is not in breach nor has received any asserted or threatened claim of breach of any Intellectual Property Rights or Intellectual Property Assets license, and the Company has no knowledge of any breach or anticipated breach by any other person to any Intellectual Property Rights or Intellectual Property Assets license. Except as described in the General Disclosure Package, no claim has been made against the Company alleging the infringement by the Company of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person. The Company has taken all reasonable steps to protect, maintain and safeguard its Intellectual Property Rights, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, the Company’s right to own, use, or hold for use any of the Intellectual Property Rights as owned, used or held for use in the conduct of the business as currently conducted. The Company has at all times complied in all material respects with all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by the Company in the conduct of the Company’s business. All key employees have signed confidentiality and invention assignment agreements with the Company. The Company has taken all necessary actions to obtain ownership of all works of authorship and inventions made by its employees, consultants and contractors during the time they were employed by or under contract with the Company and which relate to the Company’s business. To the Knowledge of the Company, the Company has complied with the United States Patent and Trademark Office’s duty of candor, good faith and disclosure and best mode requirement for any patent applications filed by the Company, and all other requirements

for patentability and enforceability of any resultant patents, and has made no material misrepresentation in any such applications.

(xxxvii) 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.

(xxxviii) Environmental Laws. Except as otherwise described in the Prospectus, and except as would not, individually or in the aggregate, result in a Material Adverse Effect (i) neither the Company nor any of its Subsidiaries is in violation of any federal, state, local or foreign law or regulation relating to pollution or protection of human health or the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including without limitation, laws and regulations relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum and petroleum products (collectively, "Materials of Environmental Concern"), or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Materials of Environment Concern (collectively, "Environmental Laws"), which violation includes, but is not limited to, noncompliance with any permits or other governmental authorizations required for the operation of the business of the Company or its Subsidiaries under applicable Environmental Laws, or noncompliance with the terms and conditions thereof, nor has the Company or any of its Subsidiaries received any written communication, whether from a governmental authority, citizens group, employee or otherwise, that alleges that the Company or any of its Subsidiaries is in violation of any Environmental Law; (ii) there is no claim, action or cause of action filed with a court or governmental authority, no investigation with respect to which the Company has received written notice, and no written notice by any person or entity alleging potential liability for investigatory costs, cleanup costs, governmental responses costs, natural resources damages, property damages, personal injuries, attorneys' fees or penalties arising out of, based on or resulting from the presence, or release into the environment, of any Material of Environmental Concern at any location owned, leased or operated by the Company or any of its Subsidiaries, now or in the past (collectively, "Environmental Claims"), pending or, to the Company's Knowledge, threatened against the Company or any of its Subsidiaries or any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law; and (iii) to the Company's Knowledge, there are no past or present actions, activities, circumstances, conditions, events or incidents, including, without limitation, the release, emission, discharge, presence or disposal of any Material of Environmental Concern, that reasonably could result in a violation of any Environmental Law or form the basis of a potential Environmental Claim against the Company or

any of its Subsidiaries or against any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law.

(xxxix) Internal Controls. Except as described in the General Disclosure Package and the Prospectus, the Company and each of its Subsidiaries maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15 of the General Rules and Regulations under the Exchange Act (the "Exchange Act Rules")) that complies with the requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in 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's internal control over financial reporting is overseen by the Audit Committee of the Board of Directors of the Company (the "Audit Committee") in accordance with the Exchange Act Rules. The Company has not publicly disclosed or reported to the Audit Committee or to the Board any material weakness, change in internal control over financial reporting or fraud involving management or other employees who have a significant role in the internal control over financial reporting (each an "Internal Control Event"), any violation of, or failure to comply with, the U.S. Securities Laws, or any matter which if determined adversely, would have a Material Adverse Effect. A member of the Audit Committee has confirmed to the Chief Executive Officer, Chief Financial Officer or General Counsel that, except as set forth in the General Disclosure Package and the Prospectus, the Audit Committee is not reviewing or investigating, and neither the Company's independent auditors nor its internal auditors have recommended that the Audit Committee review or investigate, (i) adding to, deleting, changing the application of or changing the Company's disclosure with respect to, any of the Company's material accounting policies, (ii) any matter which could result in a restatement of the Company's financial statements for any annual or interim period during the current or prior three fiscal years, or (iii) any Internal Control Event.

(xl) Disclosure Controls. The Company maintains disclosure controls and procedures (as such is defined in Rule 13a-15 of the Exchange Act Rules) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that information required to be disclosed by the Company with respect to itself and its subsidiaries in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the General Disclosure Package and in the Prospectus.

(xli) Certain Relationships. No relationship, direct or indirect, exists between or among the Company on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any of its affiliates on the other hand,

which is required to be described in the General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(xlii) Payment of Taxes. The Company and its Subsidiaries each (i) have timely filed, or duly obtained extensions of the time for filing, all necessary federal, state, local and foreign tax returns and all such returns were true, complete and correct, (ii) have paid all federal, state, local and non-U.S. taxes due and payable for which it is liable, including, without limitation, all sales and use taxes and all taxes which the Company or any of its Subsidiaries is obligated to withhold from amounts owing to employees, creditors and third parties, other than, in each case, any taxes which the Company or any of its Subsidiaries is contesting in good faith and (iii) do not have any tax deficiency that has been assessed or, to its Knowledge, proposed against any of them, except those, in each of the cases described in clauses (i), (ii) and (iii) of this paragraph (gg), that would not, singularly or in the aggregate, have a Material Adverse Effect. The Company and its Subsidiaries have not engaged in any “reportable transaction” within the meaning of Section 6707A(c) of the Code and Treasury Regulations Section 1.6011-4(b). The accruals and reserves on the books and records of the Company and its Subsidiaries in respect of tax liabilities for any taxable period not yet finally determined are adequate in accordance with GAAP to meet any assessments and related liabilities for any such period, and since December 31, 2015, the Company and its subsidiaries have not incurred any liability for taxes other than in the ordinary course.

(xliii) Insurance. The Company and each of its Subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries. Neither the Company nor any of its Subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect. All policies of insurance owned by the Company or any of its Subsidiaries are, to the Company’s Knowledge, in full force and effect and the Company and its Subsidiaries are in compliance in all material respects with the terms of such policies. Neither the Company nor any of its Subsidiaries has received written notice from any insurer, agent of such insurer or the broker of the Company or any of its Subsidiaries that any material capital improvements or any other material expenditures (other than premium payments) are required or necessary to be made in order to continue such insurance. None of the Company or any of its Subsidiaries insures risk of loss through any captive insurance, risk retention group, reciprocal group or by means of any fund or pool of assets specifically set aside for contingent liabilities other than as described in the General Disclosure Package.

(xliv) Investment Company Act. Neither the Company nor any of its Subsidiaries is or, after giving effect to the offering of the Securities and the application of the proceeds thereof as described in the General Disclosure Package and the Prospectus, will become an “investment company” within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(xlv) Absence of Manipulation. Neither the Company nor any of its officers or directors has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(xlvi) 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.

(xlvii) Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance in all material respects 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 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.

(xlviii) 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 underwriter, advisor, investor or otherwise) of Sanctions.

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

(l) Statistical and Market-Related Data. The statistical and market related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate in all material respects and such data agree with the sources from which they are derived.

(li) 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).

(lii) No Broker Fees. Other than as contemplated by this Agreement and except as disclosed in the Registration Statement, in the General Disclosure Package and in the Prospectus, the Company has not incurred any liability for any finder’s or broker’s fee or agent’s commission or financial advisory or similar fee in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

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

## SECTION 2. Sale and Delivery to Underwriters: Closing.

(a) Initial Securities. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company agrees to sell to each Underwriter, severally and not jointly, and each Underwriter, severally and not jointly, agrees to purchase from the Company, at the price per share set forth in Schedule A, that number of Initial Securities set forth in Schedule A opposite the name of such Underwriter, plus any additional number of Initial Securities which such Underwriter may become obligated to purchase pursuant to the provisions of Section 10 hereof, subject, in each case, to such adjustments among the Underwriters as the Representative in its sole discretion shall make to eliminate any sales or purchases of fractional shares.

(b) Option Securities. In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters, severally and not jointly, to purchase up to an additional 750,000 shares of Common Stock, at the price per share set forth in Schedule A, less an amount per share equal to any dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option Securities. The option hereby granted may be exercised for 30 days after the date hereof and may be exercised in whole or in part at any time from time to time upon notice by the Representative to the Company setting forth the number of Option Securities as to which the several Underwriters are then exercising the option and the time and date of payment and delivery for such Option Securities. Any such time and date of delivery (a “Date of Delivery”) shall be determined by the Representative, but any Date of Delivery after the Closing Time shall not be later than seven full business days nor earlier than two full business days after the exercise of said option, nor in any event prior to the Closing Time. If the option is exercised as to all or any portion of the Option Securities, each of the Underwriters, acting severally and not jointly, will purchase that proportion of the total number of Option Securities then being purchased which the number of Initial Securities set forth in Schedule A opposite the name of such Underwriter bears to the total number of Initial Securities, subject, in each case, to such adjustments as the Representative in its sole discretion shall make to eliminate any sales or purchases of fractional shares.

(c) Payment. Payment of the purchase price for, and delivery of certificates or security entitlements for, the Initial Securities shall be made at the offices of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., or at such other place as shall be agreed upon by the Representative and the Company, at 10:00 A.M. (New York City time) on the second (third, if the pricing occurs after 4:30 P.M. (New York City time) on any given day) business day after the date hereof (unless postponed in accordance with the provisions of Section 10), or such other time not later than ten business days after such date as shall be agreed upon by the Representative and the Company (such time and date of payment and delivery being herein called “Closing Time”). Delivery of the Initial Securities at the Closing Time shall be made

through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct.

In addition, in the event that any or all of the Option Securities are purchased by the Underwriters, payment of the purchase price for, and delivery of certificates or security entitlements for, such Option Securities shall be made at the above-mentioned offices, or at such other place as shall be agreed upon by the Representative and the Company, on each Date of Delivery as specified in the notice from the Representative to the Company. Delivery of the Option Securities on each such Date of Delivery shall be made through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct.

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

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

(a) *Compliance with Securities Regulations and Commission Requests*. The Company, subject to Section 3(b), will comply with the requirements of Rule 430B, and will notify the Representative 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. The Company shall pay the required Commission filing fees relating to the Securities within the time required by Rule 456(b)(1)(i) under the 1933 Act Regulations without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the 1933 Act Regulations (including, if applicable, by updating the "Calculation of Registration Fee" table in accordance with Rule 456(b)(1)(ii) either in a post-effective amendment to the Registration Statement or on the cover page of a prospectus filed pursuant to Rule 424(b)).



(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 Underwriters 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 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 Representative 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 Representative 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 Representative or counsel for the Underwriters shall object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative 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 Representative notice of its intention to make any such filing from the Applicable Time to the Closing Time and will furnish the Representative 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 Representative or counsel for the Underwriters shall reasonably object.

(c) *Delivery of Registration Statements.* The Company has furnished or will deliver to the Representative and counsel for the Underwriters, 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 Representative, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters 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 Underwriter, without charge, as many copies of each preliminary prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the 1933 Act. The Company will furnish to each Underwriter, without charge, 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 Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters 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 best efforts, in cooperation with the Underwriters, to qualify the Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may 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 Underwriters the benefits contemplated by, the last paragraph of Section 11(a) of the 1933 Act.

(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 best efforts to effect and maintain the listing of the Common Stock (including the Securities) on the Nasdaq Capital Market.

(i) *Restriction on Sale of Securities.* During a period of 90 days from the date of the Prospectus, the Company will not, without the prior written consent of the Representative, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock (the "Lockup Securities") or file any registration statement under the 1933 Act with respect to any of the foregoing, (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Common Stock, whether any such swap or transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (iii) publicly announce an intention to effect any such swap, agreement or other transaction described in clauses (i) and (ii), provided, however, that the foregoing shall not prohibit the filing by the Company of any registration statement on Form S-3 and a prospectus for an "at-the-market" offering program either with such Form S-3 or separately, provided that no Lockup Securities are issued pursuant to such registration statement or "at-the-market" offering prospectus, in each case during the 90 day period from the date of the Prospectus. The foregoing sentence shall not apply to (A) the Securities to be sold hereunder; (B) any shares of Common Stock issued by the Company upon the exercise of an option or warrant or the conversion of a convertible security outstanding on the date hereof and referred to in the Registration Statement, the General Disclosure Package and the Prospectus; (C) any shares of Common Stock issued or options to purchase Common Stock granted pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package and the Prospectus; (D) any shares of Common Stock issued pursuant to any existing non-employee director stock plan or dividend reinvestment plan referred to in the Registration Statement, the General Disclosure Package and the Prospectus or (E) the filing by the Company of any registration statement on Form S-8 or a successor form thereto.

(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 Representative, 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 Representative will be deemed to have consented to the Issuer Free Writing Prospectuses listed on Schedule B-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 Representative. 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 Representative 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 Representative 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) *Reserved.*

#### 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 Underwriters 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 Underwriters to investors, (iii) the preparation, issuance and delivery of the certificates or security entitlements for the Securities to the Underwriters, 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 Underwriters, (iv) the fees and disbursements of the Company’s counsel, accountants and other advisors, (v) the qualification of the Securities under securities laws in accordance with the provisions of Section 3(e) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection therewith and in connection with the preparation of 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 Underwriters in connection with, the review by FINRA of the terms of the sale of the Securities with such fees and expenses of counsel not to exceed \$15,000, (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 Underwriters caused by a breach of the representation contained in the third sentence of Section 1(a)(ii).

(b) *Termination of Agreement.* If this Agreement is terminated by the Representative 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 Underwriters for all of their reasonably documented out-of-pocket expenses, including the reasonable fees and disbursements of counsel for the Underwriters.

SECTION 5. Conditions of Underwriters' Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy of the representations and warranties of the Company contained 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 Underwriters. The Company shall have paid the required Commission filing fees relating to the Securities within the time period required by Rule 456(b)(1)(i) under the 1933 Act Regulations without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the 1933 Act Regulations and, if applicable, shall have updated the "Calculation of Registration Fee" table in accordance with Rule 456(b)(1)(ii) either in a post-effective amendment to the Registration Statement or on the cover page of a prospectus filed pursuant to Rule 424(b).

(b) *Opinion of Counsel for Company.* At the Closing Time, the Representative shall have received (a) the opinion and the negative assurance letter, each dated the Closing Time, of Goodwin Procter LLP, counsel for the Company, (b) the opinion of Dykema Gossett PLLC, Michigan counsel for the Company and (c) the opinion of Choate Hall & Stewart LLP, special counsel for the Company with respect to intellectual property matters, each in form and substance satisfactory to counsel for the Underwriters.

(c) *Opinion of Counsel for Underwriters.* At the Closing Time, the Representative shall have received the opinion, and negative assurance letter, each dated the Closing Time, of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel for the Underwriters, together with signed or reproduced copies of such letters for each of the other Underwriters in form and substance satisfactory to the Representative. 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 satisfactory to the Representative. 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 Representative 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 Effect, (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 Representative shall have received from PricewaterhouseCoopers a letter, dated such date, in form and substance satisfactory to the Representative, together with signed or reproduced copies of such letter for each of the other Underwriters containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the General Disclosure Package and the Prospectus.

(f) *Bring-down Comfort Letter.* At the Closing Time, the Representative shall have received from PricewaterhouseCoopers 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) *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.

(h) *Chief Financial Officer's Certificate.* The Company shall have furnished to the Representative a certificate, dated both as of the date of this Agreement and as of the Closing Time, of its Chief Financial Officer, in form and substance reasonably satisfactory to counsel for the Underwriters and customary for the type of offering contemplated by this Agreement.

(i) *Lock-up Agreements.* At the date of this Agreement, the Representative shall have received an agreement substantially in the form of Exhibit A hereto signed by the parties listed on Exhibit B.

(j) *Maintenance of Rating.* Since the execution of this Agreement, there shall not have been any decrease in or withdrawal of the rating of any securities of the Company or any of its subsidiaries by any "nationally recognized statistical rating organization" (as defined in Section 3(a)(62) of the 1934 Act) or any notice given of any intended or potential decrease in or withdrawal of any such rating or of a possible change in any such rating that does not indicate the direction of the possible change.

(k) *Conditions to Purchase of Option Securities.* In the event that the Underwriters exercise their option provided in Section 2(b) hereof to purchase all or any portion of the Option Securities, the representations and warranties of the Company contained herein and the statements in any certificates furnished by the Company and any of its Subsidiaries hereunder shall be true and correct as of each Date of Delivery and, at the relevant Date of Delivery, the Representative shall have received:

(i) Officers' Certificate. A certificate, dated such Date of Delivery, of the principal executive officer of the Company and of the principal financial officer of the Company

confirming that the certificate delivered at the Closing Time pursuant to Section 5(d) hereof remains true and correct as of such Date of Delivery.

(ii) Opinion of Counsel for Company. If requested by the Representative, (a) the opinion, and negative assurance letter, of Goodwin Procter LLP, counsel for the Company, (b) the opinion of Dykema Gossett PLLC, Michigan counsel for the Company and (c) the opinion of Choate Hall & Stewart LLP, special counsel for the Company with respect to intellectual property matters, each in form and substance satisfactory to counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinions and negative assurance letter required by Section 5(b) hereof.

(iii) Opinion of Counsel for Underwriters. If requested by the Representative, the opinion, and negative assurance letter, of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel for the Underwriters, dated such Date of Delivery, relating to the Option Securities to be purchased on such Date of Delivery and otherwise to the same effect as the opinion and negative assurance letter required by Section 5(c) hereof.

(iv) Bring-down Comfort Letter. If requested by the Representative, a letter from PricewaterhouseCoopers, in form and substance satisfactory to the Representative and dated such Date of Delivery, substantially in the same form and substance as the letter furnished to the Representative pursuant to subsection (f) of this Section, except that the “specified date” in the letter furnished pursuant to this paragraph shall be a date not more than three business days prior to such Date of Delivery.

(v) Chief Financial Officer’s Certificate. The Company shall have furnished to the Representative a certificate, dated such Date of Delivery, of its Chief Financial Officer, in form and substance reasonably satisfactory to counsel for the Underwriters and customary for the type of offering contemplated by this Agreement.

(l) Additional Documents. At the Closing Time and at each Date of Delivery (if any), counsel for the Underwriters 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 Representative and counsel for the Underwriters.

(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, or, in the case of any condition to the purchase of Option Securities on a Date of Delivery which is after the Closing Time, the obligations of the several Underwriters to purchase the relevant Option Securities, may be terminated by the Representative by notice to the Company at any time at or prior to Closing Time or such Date of Delivery, as the case may be, and such termination shall be without liability of any party to any other party except as provided in Section 4 and except that Sections 1, 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 Underwriters. The Company agrees to indemnify and hold harmless each Underwriter, 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 Underwriter within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, arising out of any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), 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, 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, 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;

(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 Representative), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above;

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(b) *Indemnification of Company, Directors and Officers.* Each Underwriter severally agrees to indemnify and hold harmless the Company, its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20 of the 1934 Act, against any and all loss, liability, claim, damage and expense described in the indemnity contained in subsection (a) of this Section, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendment thereto), including any information deemed to be a part thereof pursuant to Rule 430B, the General Disclosure Package or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Underwriter Information.

(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 Representative, 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 or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

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

SECTION 7. Contribution. If the indemnification provided for in Section 6 hereof is for any reason unavailable to or insufficient to hold harmless an indemnified party in respect of any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount of such losses, liabilities, claims, damages and expenses incurred by such indemnified party, as incurred, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and of the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations.

The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Securities pursuant to this Agreement shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Securities pursuant to this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discount received by the Underwriters, 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.

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

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

Notwithstanding the provisions of this Section 7, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Securities underwritten by it and distributed to the public.

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.

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

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 Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, 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 Representative 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 Representative, 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 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, 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 Representative, 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 Nasdaq Capital 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 1, 4, 6, 7, 8, 14, 15 and 16 shall survive such termination and remain in full force and effect.

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

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

(ii) if the number of Defaulted Securities exceeds 10% of the number of Securities to be purchased on such date, this Agreement or, with respect to any Date of Delivery which occurs after the Closing Time, the obligation of the Underwriters to purchase, and the Company to sell, the Option Securities to be purchased and sold on such Date of Delivery shall terminate without liability on the part of any non-defaulting Underwriter.

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

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

SECTION 11. Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be directed to Leerink at One Federal Street, Floor 37, Boston, MA 02110, attention of John I. Fitzgerald, Esq. (facsimile: 617-918-4664) and to Vericel Corporation at 64 Sidney Street, Cambridge, MA 02139, attention of Jacquelyn Fahey Sandell, Esq. (facsimile: 617 588 5554) with a copy to Goodwin Procter LLP at 100 Northern Avenue, Boston, MA 02210, attention of Mitchell Bloom, Esq. (facsimile: 6173214377).

SECTION 12. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the purchase and sale of the Securities pursuant to this Agreement, including the determination of the initial public offering price of the Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering of the Securities and the process leading thereto, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, any of its Subsidiaries or their respective stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering of the Securities or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company or any of its Subsidiaries on other matters) and no Underwriter has any obligation to the Company with respect to the offering of the Securities except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering of the Securities and the Company has consulted its own respective legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

SECTION 13. Parties. This Agreement shall each inure to the benefit of and be binding upon the Underwriters 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 Underwriters 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 Underwriters 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 Underwriter shall be deemed to be a successor by reason merely of such purchase.

SECTION 14. 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 each of the Underwriters 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 15. 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.

SECTION 16. 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 17. 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 18. Partial Unenforceability. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

SECTION 19. 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 20. Effect of Headings. The Section headings herein are for convenience only and shall not affect the construction hereof.

SECTION 21. Entire Agreement. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

[SIGNATURE PAGES FOLLOW]

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

Very truly yours,

VERICEL CORPORATION

By: /s/ Gerard Michel  
Name: Gerard Michel  
Title: CFO

CONFIRMED AND ACCEPTED  
As of the date first above written:

LEERINK PARTNERS LLC

By: /s/ Jon Civitarese  
Name: Jon Civitarese  
Title: Managing Director

For itself and as Representative of the other Underwriters named in Schedule A hereto.

[SIGNATURE PAGE TO UNDERWRITING AGREEMENT]

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SCHEDULE A

The initial public offering price per share for the Securities shall be \$13.00.

The purchase price per share for the Securities to be paid by the several Underwriters shall be \$12.22, being an amount equal to the initial public offering price set forth above less \$0.7800 per share, subject to adjustment in accordance with Section 2(b) for dividends or distributions declared by the Company and payable on the Initial Securities but not payable on the Option Securities.

<b>Name of Underwriter</b>	<b>Number of Initial Securities</b>
Leerink Partners LLC	3,250,000
BTIG, LLC	1,375,000
Ladenburg Thalmann & Co. Inc.	375,000
<b>Total</b>	<b>5,000,000</b>

SCHEDULE B-1

Pricing Terms

1. The Company is selling 5,000,000 shares of Common Stock.
  2. The Company has granted an option to the Underwriters, severally and not jointly, to purchase up to an additional 750,000 shares of Common Stock.
  3. The initial public offering price per share for the Securities shall be \$13.00.
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SCHEDULE B-2

Free Writing Prospectuses

None

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## FORM OF LOCK-UP AGREEMENT

May , 2018

Leerink Partners LLC  
as Representative of the several Underwriters

c/o Leerink Partners LLC  
1301 Avenue of the Americas, 12<sup>th</sup> Floor  
New York, NY 10019

Re: Proposed Public Offering by Vericel Corporation

Ladies and Gentlemen:

The undersigned, a stockholder, officer and/or director of Vericel Corporation, a Michigan corporation (the "Company"), understands that Leerink Partners LLC ("Leerink") proposes to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company providing for the public offering (the "Public Offering") of shares (the "Securities") of the Company's common stock, no par value per share (the "Common Stock"). In recognition of the benefit that such an offering will confer upon the undersigned as a stockholder, an officer and/or a director of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each underwriter to be named in the Underwriting Agreement (collectively, the "Underwriters") that, during the period beginning on the date hereof and ending on the date that is 90 days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of Leerink, on behalf of the Underwriters, directly or indirectly, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, or otherwise dispose of or transfer any shares of Common Stock or any securities convertible into or exchangeable or exercisable for Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or exercise any right with respect to the registration of any of the Lock-Up Securities, or file or cause to be filed any registration statement in connection therewith, under the Securities Act of 1933, as amended, or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of Common Stock or other securities, in cash or otherwise.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer Lock-Up Securities without the prior written consent of Leerink, provided, in each case, that (1) Leerink receives a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value, (3) such transfers are not required to be reported with the Securities and Exchange Commission on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and (4) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers (other than a filing on a Form 5 made after the expiration of the Lock-Up Period):

- (i) as a *bona fide* gift or gifts;
-

- (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin);
- (iii) as a distribution or other transfer by a partnership to its partners or former partners or by a limited liability company to its members or retired members or by a corporation to its stockholders or former stockholders or to any wholly-owned subsidiary of such corporation;
- (iv) to the undersigned's affiliates or to any investment fund or other entity controlled or managed by the undersigned;
- (v) pursuant to a qualified domestic relations order or in connection with a divorce settlement;
- (vi) by will or intestate succession upon the death of the undersigned; or
- (vii) to the Company in satisfaction of any tax withholding obligation.

Furthermore, no provision in this letter shall be deemed to restrict or prohibit (1) the transfer of the undersigned's Lock-Up Securities to the Company in connection with the termination of the undersigned's services to the Company, provided that any filing under Section 16 of the Exchange Act made in connection with such transfer shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (1); (2) the exercise or exchange by the undersigned of any option or warrant to acquire any shares of Common Stock or options to purchase shares of Common Stock, in each case for cash or on a "cashless" or "net exercise" basis, pursuant to any stock option, stock bonus or other stock plan or arrangement; provided, however, that the underlying shares of Common Stock shall continue to be subject to the restrictions on transfer set forth in this letter and that any filing under Section 16 of the Exchange Act made in connection with such exercise or exchange shall clearly indicate in the footnotes thereto that (a) the filing relates to the circumstances described in this clause (2) and (b) no shares were sold by the reporting person; (3) the transfer of Lock-Up Securities upon the completion of a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's securities involving a change of control of the Company; provided, however, that in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by the undersigned shall remain subject to the restrictions on transfer set forth in this letter and (4) the conversion of outstanding preferred stock of the Company into shares of Common Stock, provided that any such shares received upon such conversion shall be subject to the restrictions on transfer set forth in this letter.

Notwithstanding anything herein to the contrary, nothing herein shall prevent the undersigned from establishing a 10b5-1 trading plan that complies with Rule 10b5-1 under the Exchange Act ("10b5-1 Trading Plan") or from amending an existing 10b5-1 Trading Plan so long as there are no sales of Lock-Up Securities under any such 10b5-1 Trading Plan during the Lock-Up Period; and provided that, the establishment of a 10b5-1 Trading Plan or the amendment of a 10b5-1 Trading Plan shall only be permitted if (i) the establishment or amendment of such plan is not required to be reported in any public report or filing with the Securities Exchange Commission or otherwise, and (ii) the undersigned does not otherwise voluntarily effect any public filing or report regarding the establishment or amendment of such plan. In addition, nothing herein shall prevent the undersigned from selling shares of Common Stock under any 10b5-1 Trading Plan existing as of the date hereof, provided that any filing under Section 16(a) of the Exchange Act required to be made as result of such sales will contain a footnote disclosing that such sales were made pursuant to a 10b5-1 Trading Plan.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions. This lock-up agreement shall automatically terminate, and the undersigned shall be released from the undersigned's obligations hereunder, upon the earliest to occur, if any, of (i) prior to the execution of the Underwriting Agreement, the Company advises Leerink in writing that it has determined not to proceed with the Public Offering; (ii) the Underwriting Agreement is executed but is terminated prior to the closing of the Public Offering (other than the provisions thereof which survive termination), or (iii) June 30, 2018, in the event that the Underwriting Agreement has not been executed by such date.

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

[SIGNATURE PAGE FOLLOWS]

Very truly yours,

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

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

If not signing in an individual capacity:

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

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

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

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LOCK-UP PARTIES

Dominick C. Colangelo  
Gerard Michel  
Daniel Orlando  
Steven Gilman  
Heidi Hagen  
Alan Rubino  
Kevin McLaughlin  
Robert Zerbe  
Paul Wotton



Dykema Gossett PLC.  
39577 Woodward Avenue  
Suite 300  
Bloomfield Hills, MI 48304

WWW.DYKEMA.COM

Tel: (248) 203-0700

Fax: (248) 203-0763

May 31, 2018

Vericel Corporation  
64 Sidney Street  
Cambridge, Massachusetts 02139

Re: Vericel Corporation Registration Statement on Form S-3 (the "**Registration Statement**")

Dear Ladies and Gentlemen:

We have acted as special counsel for Vericel Corporation, a Michigan corporation (the "**Company**"), in connection with the offer and sale (the "**Offering**") by the Company of up to 5,750,000 shares (the "**Shares**") of the Company's common stock, without par value (the "**Common Stock**"), pursuant to (a) a Registration Statement on Form S-3 (File No. 333-205336) (the "**Registration Statement**") filed by the Company with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**"), which was declared effective by the Commission on July 15, 2015; (b) the prospectus of the Company dated June 29, 2015 (the "**Base Prospectus**") as filed with the Commission; and (c) the prospectus supplement of the Company, dated May 31, 2018, as filed with the Commission (the "**Prospectus Supplement**").

In rendering the opinions set forth below, we have examined and relied upon the Underwriting Agreement, dated the date hereof, between the Company and Leerink Partners LLC, as representative of the several Underwriters named in Schedule A thereto (the "**Underwriting Agreement**"), and have examined the Registration Statement (including the exhibits thereto), the originals or copies, certified or otherwise identified to our satisfaction, of the restated articles of incorporation ("**Restated Articles of Incorporation**") and the bylaws (the "**Bylaws**") of the Company as amended to date, resolutions adopted by the Company's Board of Directors, and such other documents, corporate records, and instruments, and such laws and regulations, relating to the Company and the issuance and sale of the Shares as we have deemed necessary for purposes of rendering the opinions set forth herein. We have also relied as to certain matters on information obtained from public officials.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of original documents and the conformity to original documents of all photostatic and facsimile copies submitted to us, and the due execution

California | Illinois | Michigan | Minnesota | Texas | Washington, D.C.

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and delivery of all documents by any party where due execution and delivery are a prerequisite to the effectiveness thereof. We have also assumed that all information contained in all documents reviewed by us is true and correct. We have further assumed without independent investigation that, at the time any Shares are sold pursuant to the Registration Statement and the Underwriting Agreement:

- (i) the Registration Statement, and any supplements and amendments thereto (including post-effective amendments) will be effective and comply with all applicable laws;
- (ii) all corporate or other action required to be taken by the Company to duly authorize each proposed issuance of Shares and any related documentation shall remain in full force and effect;
- (iii) the Underwriting Agreement shall remain in full force and effect;
- (iv) the Company will be validly incorporated, validly in existence, and in good standing under Michigan law; and
- (v) all Shares will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the Prospectus Supplement.

As to any facts material to the opinion expressed herein that were not independently established or verified, we have relied upon statements and representations of officers and other representatives of the Company. In addition, we have assumed that the certificates representing the Shares will be duly executed and delivered by the duly authorized officers of the Company in accordance with the Bylaws and applicable law, or the Shares will be issued in uncertificated form in compliance with applicable law and the Company's Bylaws.

Based upon such examination and subject to the further provisions hereof, we are of the opinion that, upon issuance, delivery and payment therefor in accordance with the terms of the Underwriting Agreement and the Prospectus Supplement, the Shares will be validly issued, fully paid and non-assessable.

The foregoing opinions are limited to the laws of the state of Michigan. We express no opinion and make no representation with respect to the law of any other jurisdictions. 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 update this opinion or otherwise advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion, in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act with the Commission, as an exhibit to the Current Report on Form 8-K to be filed by the Company in connection with the Offering and to the use of our name as the Company's counsel under "Legal Matters" in the Registration Statement (including the Base Prospectus and the Prospectus Supplement which are a part thereof), and in any amendment or supplement thereto. In giving such consent, we do not admit that we are within the categories of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Sincerely,

**/S/ DYKEMA GOSSETT PLLC**





**Vericel Corporation**  
64 Sidney Street  
Cambridge, MA 02139  
T 617 588-5555 F 617 588-5554

### Vericel Corporation Announces Proposed Public Offering of Common Stock

CAMBRIDGE, Mass., May 30, 2018 (GLOBE NEWSWIRE)— Vericel Corporation (NASDAQ:VCEL), a leader in advanced cell therapies for the sports medicine and severe burn care markets, today announced that it intends to offer and sell, subject to market and other conditions, 3,750,000 shares of its common stock in an underwritten public offering. Vericel also intends to grant the underwriters a 30-day option to purchase up to an additional 562,500 shares of common stock on the same terms and conditions. The offering is subject to market conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering. All of the shares in the offering are to be sold by Vericel. Net proceeds from the offering may be used for general corporate purposes as well as to expand Vericel's business by in-licensing or acquiring, as the case may be, product candidates, technologies, other assets, commercial products or businesses which would be complementary to Vericel's existing commercial franchises or its advanced cell therapy platform; however, Vericel has no current commitments or obligations to do so.

Leerink Partners is acting as the lead bookrunner for the offering. BTIG, LLC is also acting as a bookrunner.

The offering is being made pursuant to a shelf registration statement on Form S-3, including a base prospectus, that was filed with the Securities Exchange Commission (SEC) on June 29, 2015 and declared effective by the SEC on July 15, 2015. The offering is being made only by means of a written prospectus and prospectus supplement that form a part of the registration statement. A preliminary prospectus supplement and accompanying prospectus related to the offering will be filed with the SEC and will be available on the SEC's website located at <http://www.sec.gov>. Copies of the preliminary prospectus supplement and the accompanying prospectus relating to the offering, when available, may be obtained by contacting Leerink Partners LLC, c/o Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, or by email at [syndicate@leerink.com](mailto:syndicate@leerink.com), or by phone at (800) 808-7525, ext. 6132 or by contacting BTIG, LLC at 825 Third Avenue, 6th Floor, New York, NY, 10022, or by telephone at (212) 593-7555 or by e-mail at [equitycapitalmarkets@btig.com](mailto:equitycapitalmarkets@btig.com).

This press release does not constitute an offer to sell or the solicitation of an offer to buy any of these securities, nor will there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale is not permitted.

#### **About Vericel Corporation**

Vericel is a leader in advanced cell therapies for the sports medicine and severe burn care markets. The company markets two cell therapy products in the United States. MACI®

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(autologous cultured chondrocytes on porcine collagen membrane) is an autologous cellularized scaffold product indicated for the repair of symptomatic, single or multiple full-thickness cartilage defects of the knee with or without bone involvement in adults. Epicel® (cultured epidermal autografts) is a permanent skin replacement for the treatment of patients with deep dermal or full thickness burns greater than or equal to 30% of total body surface area.

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#### **Cautionary Statement on Forward-Looking Statements**

*This press release contains “forward-looking statements,” within the meaning of the Private Securities Litigation Reform Act of 1995, regarding, among other things, the proposed public offering of Vericel’s common stock. Such forward-looking statements are based on current expectations and involve inherent risks and uncertainties, including factors that could delay, divert or change any of them, and could cause actual results to differ materially from those projected in its forward-looking statements. Meaningful factors which could cause actual results to differ, including, whether or not Vericel will be able to raise capital, the final terms of the proposed offering, market and other conditions, the satisfaction of customary closing conditions related to the proposed public offering, as well as other factors discussed in the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of Vericel’s Annual Report on Form 10-K for the year ended December 31, 2017 and Vericel’s Quarterly Report on Form 10-Q for the quarter ended March 30, 2018, which are on file with the SEC and available on the SEC’s website at [www.sec.gov](http://www.sec.gov), and in the preliminary prospectus supplement related to the proposed offering to be filed with the SEC. In addition to the risks described above, other unknown or unpredictable factors also could affect Vericel’s results. There can be no assurance that the actual results or developments anticipated by Vericel will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on Vericel. Therefore, no assurance can be given that the outcomes stated in such forward-looking statements and estimates will be achieved. Except as required by applicable law, Vericel 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.*

#### **CONTACT:**

Chad Rubin  
Solebury Trout  
[crubin@troutgroup.com](mailto:crubin@troutgroup.com)  
+1 (646) 378-2947

Lee Stern  
Solebury Trout  
[lstern@troutgroup.com](mailto:lstern@troutgroup.com)  
+1 (646) 378-2922



**Vericel Corporation**  
64 Sidney Street  
Cambridge, MA 02139  
T 617 588-5555 F 617 588-5554

### **Vericel Corporation Prices \$65 Million Public Offering of Common Stock**

CAMBRIDGE, Mass., May 31, 2018 (GLOBE NEWSWIRE)— Vericel Corporation (NASDAQ:VCEL), a leader in advanced cell therapies for the sports medicine and severe burn care markets, today announced the pricing of its previously announced underwritten public offering of 5,000,000 shares of its common stock, at a price to the public of \$13.00 per share. The gross proceeds to Vericel from this offering are expected to be \$65 million, before deducting the underwriting discounts and commissions and other estimated offering expenses payable by Vericel. Vericel has granted the underwriters a 30-day option to purchase up to an additional 750,000 shares of common stock on the same terms and conditions. The offering is expected to close on or about June 5, 2018, subject to customary closing conditions. Vericel anticipates using the proceeds from the offering for general corporate purposes as well as to expand Vericel's business by in-licensing or acquiring, as the case may be, product candidates, technologies, other assets, commercial products or businesses which would be complementary to Vericel's existing commercial franchises or its advanced cell therapy platform; however, Vericel has no current commitments or obligations to do so.

Leerink Partners is acting as the lead bookrunner for the offering. BTIG, LLC is also acting as a bookrunner. Ladenburg Thalmann is acting as co-manager.

The offering is being made pursuant to a shelf registration statement on Form S-3, including a base prospectus, that was filed with the Securities Exchange Commission (SEC) on June 29, 2015 and declared effective by the SEC on July 15, 2015. The offering is being made only by means of a written prospectus and prospectus supplement that form a part of the registration statement. A preliminary prospectus supplement and accompanying prospectus related to the offering has been filed with the SEC. A final prospectus supplement for the offering will be filed with the SEC and will be available on the SEC's website located at <http://www.sec.gov>. Copies of the final prospectus supplement and the accompanying prospectus relating to the offering, when available, may be obtained by contacting Leerink Partners LLC, c/o Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, or by email at [syndicate@leerink.com](mailto:syndicate@leerink.com), or by phone at (800) 808-7525, ext. 6132 or by contacting BTIG, LLC at 825 Third Avenue, 6th Floor, New York, NY, 10022, or by telephone at (212) 593-7555 or by e-mail at [equitycapitalmarkets@btig.com](mailto:equitycapitalmarkets@btig.com).

This press release does not constitute an offer to sell or the solicitation of an offer to buy any of these securities, nor will there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale is not permitted.

#### **About Vericel Corporation**

Vericel is a leader in advanced cell therapies for the sports medicine and severe burn care markets. The company markets two cell therapy products in the United States. MACI® (autologous cultured chondrocytes on porcine collagen membrane) is an autologous cellularized scaffold product indicated for the repair of symptomatic, single or multiple full-thickness cartilage defects of the knee with or without bone involvement in adults. Epicel® (cultured epidermal autografts) is a permanent skin replacement for the treatment of patients with deep dermal or full thickness burns greater than or equal to 30% of total body surface area.

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## Cautionary Statement on Forward-Looking Statements

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## CONTACT:

Chad Rubin  
Solebury Trout  
[crubin@troutgroup.com](mailto:crubin@troutgroup.com)  
+1 (646) 378-2947

Lee Stern  
Solebury Trout  
[lstern@troutgroup.com](mailto:lstern@troutgroup.com)  
+1 (646) 378-2922