UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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): July 14, 2015

OpGen, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-37367**	**06-1614015**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

708 Quince Orchard Road, Suite 160
Gaithersburg, MD 20878
(Address of principal executive offices, including zip code)

(240) 813-1260
(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))

Item 1.01 Entry into a Material Definitive Agreement.

Agreement and Plan of Merger

On July 14, 2015, OpGen, Inc. (the "Company") entered into an Agreement and Plan of Merger (the "Merger Agreement") with AdvanDx, Inc., a Delaware corporation ("AdvanDx"), Velox Acquisition Corp., a Delaware corporation and wholly owned subsidiary of the Company (the "Merger Sub"), and the stockholders signatory thereto (the "Stockholder Parties") and the Representatives signatory thereto. The disclosure set forth below in Item 2.01 of this Current Report on Form 8-K relating to the Merger Agreement and the merger effected thereby is hereby incorporated into this item by reference.

Common Stock and Note Purchase Agreement

On July 14, 2015, the Company entered into a Common Stock and Note Purchase Agreement (the "Purchase Agreement") with Merck Global Health Innovation Fund, LLC ("Merck GHI"). The disclosure set forth below in Item 3.02 of this Current Report on Form 8-K relating to the Purchase Agreement and the transactions contemplated thereby (the "Investment Transactions") is hereby incorporated into this item by reference.

Item 2.01 Completion of Acquisition or Disposition of Assets.

On July 14, 2015, the Company completed the strategic acquisition of AdvanDx. Pursuant to the Merger Agreement, the Merger Sub merged with and into AdvanDx, with AdvanDx surviving as a wholly owned subsidiary of the Company (the "Merger") in accordance with the General Corporation Law of the State of Delaware.

Under the terms of the Merger Agreement, the merger consideration consisted of an aggregate 681,818 shares of the Company's common stock (the "Merger Consideration") which Merger Consideration was distributed in accordance with the liquidation preferences set forth in the AdvanDx Restated Certificate of Incorporation, as amended.

The issuance of the Merger Consideration was effected as a private placement of securities under Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"), and Regulation D promulgated thereunder. The Company entered into a Registration Rights Agreement with the AdvanDx stockholders receiving Merger Consideration. The disclosure set forth below in Item 3.02 of this Current Report on Form 8-K relating to the Registration Rights Agreement and the transactions contemplated thereby is hereby incorporated into this item by reference.

The Merger Agreement contains customary representations and warranties of the parties and the Stockholder Parties have customary indemnification obligations to the Company relating to AdvanDx, which are subject to certain limitations described further in the Merger Agreement.

The foregoing description of the Merger Agreement is only a summary and is qualified in its entirety by reference to the complete text of the Merger Agreement, which is filed as Exhibit 2.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The description of the Note in Item 3.02 of this Current Report on Form 8-K is incorporated by reference into this Item 2.03.

Item 3.02 Unregistered Sales of Equity Securities.

Merger Transaction

The Merger, as described under Item 2.01 of this Current Report on Form 8-K, was effected as a private placement of securities and such description is incorporated by reference into this Item 3.02.

Investment Transactions

On July 14, 2015, the Company entered into the Purchase Agreement with Merck GHI, pursuant to which Merck GHI purchased 1,136,364 shares of common stock of the Company at a price of $4.40 per share for gross proceeds of $5,000,001.60 (the "Shares"). Pursuant to the Purchase Agreement, the Company also issued to Merck GHI a Senior Secured Promissory Note (the "Note" and collectively with the Shares, the "Securities") in the principal amount of $1,000,000.00 with a two-year maturity date from the date of issuance. The Company intends to use the proceeds from the sale of the Securities for working capital and other general corporate purposes. The Company's obligations under the Note are secured by a lien on all of the Company's assets pursuant to the terms of a Security Agreement, dated as of July 14, 2015, by and among the Company and AdvanDx, as debtors, and Merck GHI as the secured party. The sale of the Shares and the Note was effected as a private placement transaction under Section 4(a)(2) of the Securities Act.

As previously disclosed, in connection with the consummation of the issuance and sale of the Securities, the Company's Board of Directors elected David M. Rubin, Ph.D., managing director of Merck GHI to the Company's Board of Directors.

The Purchase Agreement contains customary representations and warranties of the parties and provides Merck GHI with specified indemnification rights.

Registration Rights Agreements

In connection with the Merger and the Investment Transactions, the Company also entered into a Registration Rights Agreement, dated as of July 14, 2015, with the AdvanDx stockholders receiving Merger Consideration and with Merck GHI (collectively, the "Investors"), pursuant to which the Investors were granted certain demand registration rights and piggyback registration rights to participate in subsequent registered offerings of the Company's common stock.

The foregoing description of the Purchase Agreement, the Note and the Registration Rights Agreement is only a summary and is qualified in its entirety by reference to the complete text of the Purchase Agreement, the Note and Registration Rights Agreement, which are filed as Exhibit 10.1, Exhibit 10.2 and Exhibit 10.3, respectively, to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibits are filed herewith:

Exhibit No.	Document
2.1	Agreement and Plan of Merger, dated as of July 14, 2015, by and among OpGen, Inc., Velox Acquisition Corp, AdvanDx, Inc., Stockholder Parties and Representatives.
10.1	Common Stock and Note Purchase Agreement, dated as of July 14, 2015, by and between OpGen, Inc. and Merck Global Health Innovation Fund, LLC.
10.2	Senior Secured Promissory Note, dated as of July 14, 2015, by and between OpGen, Inc. and Merck Global Health Innovation Fund, LLC.
10.3	Registration Rights Agreement, dated as of July 14, 2015, by and among OpGen, Inc., Merck Global Health Innovation Fund, LLC, SLS Invest AB and LD Pensions.

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, thereunto duly authorized.

OpGen, Inc.

By: /s/ Timothy C. Dec
Name: Timothy C. Dec
Title: Chief Financial Officer

Date: July 16, 2015

EXHIBIT INDEX

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10.3	Registration Rights Agreement, dated as of July 14, 2015, by and among OpGen, Inc., Merck Global Health Innovation Fund, LLC, SLS Invest AB and LD Pensions.

Exhibit 2.1

AGREEMENT AND PLAN OF MERGER

Dated as of July 14, 2015

among

OPGEN, INC.

VELOX ACQUISITION CORP.

ADVANDX, INC.

THE STOCKHOLDER PARTIES (as defined herein)

and

THE REPRESENTATIVES (as defined herein)

The Merger Agreement contains representations and warranties by the parties thereto. A party's representations and warranties were made solely for the benefit of the other party or parties and (i) were not intended to be treated as categorical statements of fact, but rather as a way of allocating the risk to the party or parties making the representation and warranty if it proves to be inaccurate; (ii) may have been qualified in the Merger Agreement by disclosures that were made to the other party or parties in connection with the negotiation of the Merger Agreement (provided that any specific facts that contradict the representations and warranties in the Merger Agreement in any material respect have been disclosed); (iii) may apply contract standards of "materiality" that are different from "materiality" under the applicable securities laws; and (iv) were made only as of the date of the Merger Agreement or such other date or dates as may be specified in the Merger Agreement.

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AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER, dated as of July 14, 2015 (this "**Agreement**"), is among OpGen, a Delaware corporation ("**Parent**"), Velox Acquisition Corp., a Delaware corporation and a wholly owned Subsidiary of Parent ("**Merger Sub**"), AdvanDx, Inc., a Delaware corporation (the "**Company**"), and for purposes of Article VII only Merck Global Health Innovation Fund, LLC and SLS Invest AB, in their joint capacity as the Representatives of the Stockholder Parties hereunder and each as a Stockholder Party hereunder (individually a "**Representative**" and together the "**Representatives**"), and each of the other Persons listed on the signature pages hereto (collectively, the "**Stockholder Parties**"). Certain terms used in this Agreement are used as defined in Section 8.11.

WHEREAS, the respective Boards of Directors of Parent, Merger Sub and the Company, and the stockholders of the Company, have approved this Agreement and the merger of Merger Sub with and into the Company (the "**Merger**") upon the terms and subject to the conditions set forth in this Agreement; and

WHEREAS, pursuant to the Merger, shares of the Company's common stock, par value $0.0001 per share ("**Company Common Stock**") and Company Preferred Stock (as defined herein) shall be, except as otherwise provided herein, converted into the right to receive the applicable portion of the Merger Consideration (as defined herein) in the manner and on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in this Agreement, and intending to be legally bound hereby, Parent, Merger Sub and the Company hereby agree as follows:

ARTICLE I
THE MERGER

Section 1.1 The Merger.

Upon the terms and subject to the conditions set forth in this Agreement, and in accordance with the General Corporation Law of the State of Delaware (the "**DGCL**"), at the Effective Time, Merger Sub shall be merged with and into the Company, and the separate corporate existence of Merger Sub shall thereupon cease, and the Company shall be the surviving corporation in the Merger (the "**Surviving Corporation**") and shall continue its existence under the DGCL as a wholly-owned Subsidiary of Parent.

Section 1.2 Closing.

The closing of the Merger (the "**Closing**") shall take place at 10:00 a.m. (Philadelphia, PA time) on a date to be specified by the parties (the "**Closing Date**"), which date shall be no later than the third business day after satisfaction or waiver of the conditions set forth in Article VI (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of those conditions at such time), at the offices of Ballard Spahr LLP, 1735 Market Street, 51st Floor, Philadelphia PA 19103, unless another time, date or place is agreed to in writing by the parties hereto.

Section 1.3 Effective Time.

Subject to the provisions of this Agreement, as soon as practicable on the Closing Date the parties shall file with the Secretary of State of the State of Delaware a certificate of merger (the "**Certificate of Merger**") in the form attached as **Exhibit A** satisfying the applicable requirements of the DGCL and duly executed in accordance with the relevant provisions of the DGCL. The Merger shall become effective upon the filing of the Certificate of Merger or at such later time as is agreed to by the parties hereto and specified in the Certificate of Merger (the time at which the Merger becomes effective is herein referred to as the "**Effective Time**").

Section 1.4 Effects of the Merger.

The Merger shall have the effects set forth in applicable provisions of Delaware law and this Agreement. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time, all the properties, rights, privileges, powers and franchises of the Company and Merger Sub shall vest in the Surviving Corporation, and all debts, liabilities, obligations and duties of the Company and Merger Sub shall become the debts, liabilities, obligations and duties of the Surviving Corporation.

Section 1.5 Certificate of Incorporation and Bylaws of the Surviving Corporation.

(a) The certificate of incorporation of the Merger Sub, as restated and attached to the Certificate of Merger, shall be the certificate of incorporation of the Surviving Corporation until thereafter amended as provided therein or by applicable Law.

(b) At the Effective Time, the bylaws of Merger Sub, as in effect immediately prior to the Effective Time, shall be the bylaws of the Surviving Corporation until thereafter amended as provided therein or by applicable Law.

Section 1.6 Directors and Officers of the Surviving Corporation.

The directors and officers of Merger Sub immediately prior to the Effective Time, as set forth on **Schedule 1.6** attached hereto, shall be the directors and officers of the Surviving Corporation immediately following the Effective Time, each to hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation until their respective successors are duly elected or appointed and qualified or their earlier death, resignation or removal in accordance with the certificate of incorporation and bylaws of the Surviving Corporation.

Section 1.7 Subsequent Actions.

If at any time after the Effective Time the Surviving Corporation shall determine, in its sole discretion, or shall be advised, that any deeds, bills of sale, instruments of conveyance, assignments, assurances or any other actions or things are necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Corporation its right, title or interest in, to or under any of the rights, properties or assets of either of the Company or Merger Sub acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger or otherwise to carry out this Agreement, then the officers and directors of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of either the Company or Merger Sub, all such deeds, bills of sale, instruments of conveyance, assignments and assurances and to take and do, in the name and on behalf of each of such corporations or otherwise, all such other actions and things as may be necessary or desirable to vest, perfect or confirm any and all right, title or interest in, to and under such rights, properties or assets in the Surviving Corporation or otherwise to carry out this Agreement.

Section 1.8 Tax Consequences.

It is intended by the parties hereto that the Merger shall constitute a taxable transaction for U.S. federal income tax purposes and not a tax-free reorganization under Section 368(a) of the Internal Revenue Code of 1986, as amended , and the rules and regulations promulgated thereunder (the "**Code**"); provided, however, that no party hereto makes any representation or warranty to any other party that the Merger constitutes a taxable transaction for U.S. federal income tax purposes. Each of the parties hereto agrees to report the Merger for U.S. federal and state income Tax purposes as a taxable transaction except to the extent (i) required pursuant to a "determination" within the meaning of Section 1313(a) of the Code (or any comparable provision of any state, local or foreign law), or (ii) otherwise prohibited by the Code or any other provision of applicable Law.

ARTICLE II
EFFECT OF THE MERGER ON THE CAPITAL STOCK; EXCHANGE OF CERTIFICATES; COMPANY EQUITY AWARDS

Section 2.1 Effect on Capital Stock.

At the Effective Time, by virtue of the Merger and without any action on the part of Parent, Merger Sub, the Company or the holder of any shares of Company Common Stock or Company Preferred Stock (collectively, the "**Shares**") or of any shares of capital stock of Merger Sub:

(a) Capital Stock of Merger Sub. Each issued and outstanding share of capital stock of Merger Sub shall be automatically converted into and become one validly issued, fully paid and nonassessable share of common stock, par value $0.01 per share, of the Surviving Corporation.

(b) Cancellation of Company and Parent-Owned Stock. Any Shares that are owned by the Company or owned by any direct or indirect wholly owned Subsidiary of the Company immediately prior to the Effective Time, and any Shares owned by Parent, Merger Sub or any other direct or indirect wholly owned Subsidiary of Parent immediately prior to the Effective Time, shall be automatically canceled and shall cease to exist and no consideration shall be delivered in exchange therefor.

(c) Payment of Aggregate Merger Consideration. Immediately prior to the Effective Time, the outstanding convertible promissory notes in the aggregate principal amount of $2,500,000 (the "**Bridge Notes**") shall be converted into shares of Series B-1 Preferred Stock of the Company in accordance with the provisions of the Bridge Notes and the Amended and Restated Certificate of Incorporation of the Company filed March 31, 2014, as amended by the Certificate of Amendment thereto, filed February 26, 2015 (as amended, the "**Restated Certificate**"). The Merger shall constitute a "Deemed Liquidation Event" as defined in ARTICLE IV, Section 2.3(b) of the Restated Certificate, and Aggregate Merger Consideration shall be distributed to the stockholders of the Company in accordance with the liquidation preferences set forth in Section 2.3(a) of the Restated Certificate. Each issued and outstanding Share (other than Dissenting Shares and assuming conversion of all outstanding Bridge Notes) shall be automatically converted into the right to receive the allocated portion of the Aggregate Merger Consideration in accordance with such liquidation preferences as set forth on Schedule 2.1(c). The Shares that are so converted into the right to receive any portion of the Aggregate Merger Consideration pursuant to this Section 2.1(c), are referred to herein as the "**Merger Shares**."

(d) Adjustment to Aggregate Merger Consideration. The Aggregate Merger Consideration shall be adjusted appropriately to reflect the effect of any stock split, reverse stock split, stock dividend (including any dividend or distribution of securities convertible into Company Common Stock), cash dividend, reorganization, recapitalization, reclassification, combination, exchange of shares or other like change with respect to the Company Common Stock occurring on or after the date hereof and prior to the Effective Time.

(e) Appraisal Rights. Notwithstanding anything in this Agreement to the contrary, Shares that are issued and outstanding immediately prior to the Effective Time and which are held by a stockholder who did not vote in favor of the Merger (or consent thereto in writing or who otherwise did not validly waive their right to appraisal) and who is entitled to demand and properly demands appraisal of such Shares pursuant to, and who complies in all respects with, the provisions of Section 262 of the DGCL (the "**Dissenting Stockholders**"), shall not be converted into or be exchangeable for the right to receive any portion of the Aggregate Merger Consideration (the "**Dissenting Shares**"), but instead such holder shall be entitled to payment of the fair value of such Shares in accordance with the provisions of Section 262 of the DGCL (and at the Effective Time, such Dissenting Shares shall no longer be outstanding and shall automatically be canceled and shall cease to exist, and such holder shall cease to have any rights with respect thereto, except the right to receive the fair value of such Dissenting Shares in accordance with the provisions of Section 262 of the DGCL), unless and until such holder shall have failed to perfect or shall have effectively withdrawn or lost rights to appraisal under the DGCL. If any Dissenting Stockholder shall have failed to perfect or shall have effectively withdrawn or lost such right, such stockholder's Shares shall thereupon be treated as if they had been converted into and become exchangeable for the right to receive, as of the Effective Time, the applicable portion of the Aggregate Merger Consideration for each such Share, in accordance with Section 2.1(c), without any interest thereon. The Company shall give Parent (i) prompt notice of any written demands for appraisal of any Shares, attempted withdrawals of such demands and any other instruments served pursuant to the DGCL and received by the Company relating to stockholders' rights of appraisal, and (ii) the opportunity to participate in all negotiations and proceedings with respect to demands for appraisal under the DGCL. The Company shall not, except with the prior written consent of Parent, voluntarily make any payment with respect to, or settle, or offer or agree to settle, any such demand for payment or waive any failure by a stockholder to timely comply with the requirements of the DGCL to perfect or demand appraisal rights. Any portion of the Aggregate Merger Consideration made available to the Paying Agent pursuant to Section 2.2 to pay for Shares for which appraisal rights have been perfected shall be returned to Parent upon demand.

Section 2.2 Exchange of Certificates.

(a) Paying Agent. Parent hereby designates its transfer agent as paying and exchange agent in connection with the Merger (the "**Paying Agent**"). At the Closing, Parent shall enter into an agreement with the Paying Agent, in the form of **Exhibit B** to this Agreement, which sets forth the obligations of the Paying Agent under this Agreement (the "**Paying Agent Agreement**"). Promptly after the Effective Time, Parent shall deposit the aggregate Merger Consideration to which holders of Merger Shares shall become entitled pursuant to Section 2.1(c) with the Paying Agent, for the benefit of the holders of the Merger Shares outstanding immediately prior to the Effective Time.

(b) Payment Procedures. Promptly after the Effective Time, but in any event no later than five business days after the Effective Time, Parent shall cause the Paying Agent to mail to each holder of record of a Merger Share (i) a letter of transmittal (which shall specify that delivery shall be effected, and risk of loss and title to the certificates representing the Merger Shares (the "**Certificates**") and to any uncertificated Merger Shares held in book-entry form ("**Uncertificated Shares**") shall pass, only upon delivery of the Certificates or transfer of the Uncertificated Shares to the Paying Agent, and which shall be in such form and shall have such other provisions as is customary) and (ii) instructions for use in effecting the surrender of the Certificates or transfer of the Uncertificated Shares in exchange for payment of the applicable Merger Consideration. Upon (i) surrender of a Certificate for cancellation to the Paying Agent, together with such letter of transmittal, duly completed and validly executed in accordance with the instructions (and such other customary documents as may reasonably be required by the Paying Agent), or (ii) receipt of an "agent's message" by the Paying Agent (or such other evidence, if any, of transfer as the Paying Agent may require) in the case of book-entry transfer of Uncertificated Shares, the holder of such Certificate or Uncertificated Shares shall be entitled to receive promptly in exchange therefor the applicable Merger Consideration, without interest, for each Merger Share formerly represented by such Certificate or Uncertificated Share, and the Certificate or Uncertificated Share so surrendered or transferred shall forthwith be canceled. Payment of the Merger Consideration shall at all times be made by the Paying Agent in accordance with Schedule 2.1(c), which shall be delivered to the Paying Agent at Closing. If payment of the applicable Merger Consideration is to be made to a Person other than the Person in whose name the surrendered Certificate or transferred Uncertificated Shares is registered, it shall be a condition of payment that (x) the Certificate so surrendered shall be properly endorsed or shall otherwise be in proper form for transfer or such Uncertificated Shares shall be properly transferred and (y) the Person requesting such payment shall have paid any transfer and other Taxes (other than income Taxes) required by reason of the payment of the applicable Merger Consideration in respect thereof or shall have established to the reasonable satisfaction of the Surviving Corporation that such Tax either has been paid or is not applicable. Until surrendered as contemplated by this Section 2.2, each Certificate or Uncertificated Share shall be deemed at any time after the Effective Time to represent only the right to receive the applicable Merger Consideration as contemplated by this Article II.

(c) Transfer Books; No Further Ownership Rights in Company Capital Stock. The Aggregate Merger Consideration paid in respect of the Merger Shares upon the surrender for exchange of Certificates or transfer of Uncertificated Shares in accordance with the terms of this Article II shall be deemed to have been paid in full satisfaction of all rights pertaining to the Merger Shares previously represented by such Certificates or Uncertificated Shares, and at the Effective Time, the stock transfer books of the Company shall be closed and thereafter there shall be no further registration of transfers on the stock transfer books of the Surviving Corporation of the Shares that were outstanding immediately prior to the Effective Time. From and after the Effective Time, the holders of Shares shall cease to have any rights with respect to such Shares, except the right to receive the allocated portion of the Aggregate Merger Consideration in accordance Schedule 2.1(c), to be paid in consideration therefor, without interest, upon compliance with the provisions of Section 2.2(b) or as otherwise provided by applicable Law. Subject to the last sentence of Section 2.2(e), if, at any time after the Effective Time, Certificates representing either Shares or Merger Shares or Uncertificated Shares or Merger Shares are presented to the Surviving Corporation for any reason, they shall be canceled and exchanged as provided in this Article II.

(d) Lost, Stolen or Destroyed Certificates. If any Certificate shall have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the Person claiming such Certificate to be lost, stolen or destroyed and, if required by Parent or the Paying Agent, the posting by such Person of a bond, in such customary amount and upon such customary terms as Parent or the Paying Agent may direct, as indemnity against any claim that may be made against it with respect to such Certificate, the Paying Agent will pay, in exchange for such lost, stolen or destroyed Certificate, the applicable Merger Consideration to be paid in respect of the Merger Shares formerly represented by such Certificate, as contemplated by this Article II.

(e) Termination of Fund. At any time following 12 months after the Closing Date, Parent shall be entitled to require the Paying Agent to deliver to it any Parent Shares that had been made available to the Paying Agent and which have not been disbursed to holders of Merger Shares, and thereafter such holders shall be entitled to look only to Parent (subject to abandoned property, escheat or other similar Laws) as general creditors thereof with respect to the issuance of the applicable Merger Consideration that may be payable upon surrender of any Certificates or transfer of any Uncertificated Shares held by such holders, as determined pursuant to this Agreement. Any amounts remaining unclaimed by such holders at such time at which such amounts would otherwise escheat to or become property of any Governmental Authority shall become, to the extent permitted by applicable Law, the property of Parent, free and clear of all claims or interest of any Person previously entitled thereto.

(f) No Liability. Notwithstanding any provision of this Agreement to the contrary, none of the parties hereto, the Surviving Corporation or the Paying Agent shall be liable to any Person for any portion of the Aggregate Merger Consideration delivered to a public official pursuant to any applicable abandoned property, escheat or similar Law.

(g) Withholding Taxes. Parent, the Surviving Corporation and the Paying Agent, as the case may be, shall be entitled to deduct and withhold from the applicable Merger Consideration otherwise payable to a holder of Merger Shares, as applicable, pursuant to this Agreement such amounts as may be required to be deducted and withheld with respect to the making of such payment under the Code, or under any provision of state, local or foreign tax Law. To the extent amounts are so withheld, (i) Parent, the Surviving Corporation or the Paying Agent, as the case may be, shall remit such withheld amounts to the applicable Governmental Authority, and (ii) the withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of which such deduction and withholding was made. Notwithstanding the foregoing, Parent or the Paying Agent, as the case may be, shall notify the Stockholder Parties in advance of any withholding that it determines will be applicable to any payments hereunder, and shall use commercially reasonable efforts to assist in minimizing or mitigating such withholding taxes.

Section 2.3 Equity Awards.

(a) Stock Options. Prior to the Effective Time, the Company shall take all actions necessary to terminate all outstanding Options under the Company's 2012 Employee, Director and Consultant Equity Incentive Plan (the "**2012 Plan**") effective as of the Effective Time. Immediately after the Closing the Company shall send a notice to each holder of Options under the Company's 2012 Plan and the Non-Qualified Stock Option Plan reflecting the cancellation of such Options, due to the fact that the Company's Common Stock is not entitled to Merger Consideration pursuant to the terms of the Company's liquidation preferences as set forth in Schedule 2.1(c) and the terms of the Merger.

(b) Warrants. The Company shall take all actions necessary, in accordance with the Warrant Agreements or Warrant Certificates related to all previously outstanding Warrants to notify the holders of such Warrants of the opportunity to exercise such Warrants to acquire Company Common Stock immediately prior to the Effective Time. Such Warrants are listed on Schedule 2.3(b).

(c) Corporate Action. Prior to the Effective Time, the Company shall take all actions necessary to terminate all the Company Stock Plans effective at or prior to the Effective Time that have not previously been terminated.

ARTICLE III
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Except as set forth in the disclosure schedule delivered by the Company to Parent simultaneously with the execution of this Agreement and signed by an authorized officer of the Company solely in his or her capacity as an officer of the Company (the "**Company Disclosure Schedule**"), with specific reference to the Section or subsection of this Agreement to which the information stated in such disclosure relates (it being agreed that disclosure of any information in a particular section or subsection of the Company Disclosure Schedule corresponding to this Article III shall be deemed to be disclosed with respect to any other section or subsection of this Article III to the extent such disclosure is accompanied by an appropriate cross reference to such other section or subsection or to the extent that it is reasonably apparent from a reading of the text of such disclosure as set forth in the Company Disclosure Schedule (and without reference to the contents of any Contract or document or other materials referenced in such disclosure) that such disclosure also qualifies or applies to such other section or subsection), the Company represents and warrants to Parent and Merger Sub as follows:

Section 3.1 Organization, Standing and Corporate Power.

(a) The Company is duly organized, validly existing and in good standing under the Laws of the jurisdiction in which it is incorporated and has all requisite corporate power and authority necessary to own or lease all of its properties and assets and to carry on its business as it is now being conducted. The Company is duly licensed or qualified to do business and is in good standing in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned or leased by it makes such licensing or qualification necessary, except where the failure to be so licensed, qualified or in good standing, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect. The Company is qualified to do business in the jurisdiction set forth on Section 3.1(a) of the Company Disclosure Schedule.

(b) The Company has one wholly owned Subsidiary, which is incorporated under the laws of the country of Denmark, and is validly existing and in good standing under the laws of the country of Denmark. The Company's Subsidiary has all required power and authority to own its property and to carry on its business as presently conducted and contemplated to be conducted, and is duly qualified or otherwise authorized to do business in each jurisdiction in which the failure to so qualify, individually or in the aggregate, could have a Material Adverse Effect. The Company does not own or control, directly or indirectly, shares of capital stock of any other corporation (other than its Danish subsidiary), or any ownership interest in any partnership, joint venture, limited liability company or other non-corporate business entity or enterprise.

(b) The Company has delivered or made available to Parent correct and complete copies of its certificate of incorporation and bylaws, as amended (the "**Company Charter Documents**"), and correct and complete copies of the certificates of incorporation and bylaws (or comparable organizational documents) of its Subsidiary (the "**Subsidiary Organizational Documents**"), in each case as amended to the date of this Agreement. All such Company Charter Documents and Subsidiary Organizational Documents are in full force and effect and neither the Company nor its Subsidiary is in violation of any of their respective provisions in any material respect.

Section 3.2 Capitalization.

(a) The authorized capital stock of the Company is 12,521,351 Shares consisting of (i) 8,272,115 shares of Company Common Stock, and (ii) 4,249,236 shares of preferred stock, par value $0.0001 per share, divided into the following classes: 102,500 Shares of Series A Preferred Stock; 1,023,059 Shares of Series A-1 Preferred Stock; and 3,123,677 Shares of Series B-1 Preferred Stock (the capital stock referred to in clause (ii) collectively, the "**Preferred Stock**").

(b) At the close of business on June 15, 2015 (i) 2,060,004 shares of Company Common Stock were issued and outstanding, (ii) no shares of Company Common Stock were held by the Company in its treasury, (iii) 1,182,335 shares of Company Common Stock were reserved for issuance under the Company Stock Plans (of which 419,312 shares of Company Common Stock were subject to outstanding Options granted under the Company Stock Plans), (iv) 1,035,559 shares of Company Common Stock were reserved for issuance upon the exercise of the Warrants, and (v) 102,500 shares of Series A Preferred Stock, 1,023,059 shares of Series A-1 Preferred Stock, 2,552,852 shares of Series B-1 Preferred Stock and Warrants to purchase of 1,035,559 shares of Company Common Stock were issued and outstanding. No shares of any other class or series of Preferred Stock were issued or outstanding, and no Warrants to acquire shares of Preferred Stock are outstanding. All outstanding shares of Company Common Stock and Preferred Stock have been duly authorized and validly issued and are fully paid and nonassessable.

(c) Section 3.2(c) of the Company Disclosure Schedule sets forth a correct and complete list, as of June 15, 2015, of all outstanding Options or other rights to purchase or receive shares of Company Common Stock granted under the Company Stock Plans, and, for each such Option or other right, (i) the Company Stock Plan under which issued, (ii) the number of shares of Company Common Stock subject thereto, (iii) the grant date and exercise price thereof, as applicable, (iv) the name of the holder thereof; (v) the vesting schedule, if any; and (vi) the term. No Options or other rights to purchase or receive any shares of Company Common Stock or other equity securities of the Company will be in existence immediately after the Effective Time.

(d) The Company has delivered or made available to Parent complete and accurate copies of the Warrants, and except for the Warrants, no other warrants for shares of the Company Common Stock or Preferred Stock are outstanding.

(e) Since January 1, 2010, the Company has not declared or paid any dividend or declared or made any distribution on any of its capital stock, or directly or indirectly redeemed, purchased or otherwise acquired any of its outstanding capital stock.

(f) Except as set forth above in this Section 3.2, as of the date of this Agreement there are not, and as of the Effective Time there will not be, any shares of capital stock, voting securities or equity interests of the Company issued and outstanding or any subscriptions, options, warrants, calls, convertible or exchangeable securities, rights, commitments or agreements of any character providing for the issuance of any shares of capital stock, voting securities or equity interests of the Company or representing the right to purchase or otherwise receive any Company Common Stock or Preferred Stock.

(g) None of the Company or its Subsidiary has issued or is bound by any outstanding subscriptions, options, warrants, calls, convertible or exchangeable securities, rights, commitments or agreements of any character providing for the issuance or disposition of any shares of capital stock, voting securities or equity interests of any Subsidiary of the Company. There are no outstanding obligations of the Company or its Subsidiary to repurchase, redeem or otherwise acquire any shares of capital stock, voting securities or equity interests (or any options, warrants or other rights to acquire any shares of capital stock, voting securities or equity interests) of the Company or its Subsidiary.

Section 3.3 Authority; Non-contravention; Voting Requirements.

(a) The Company Board of Directors, at a meeting duly called and held, has (i) determined that this Agreement, the Merger and the other Transactions are advisable, fair to, and in the best interest of the Company and its stockholders, (ii) approved this Agreement and the Transactions, including the Merger, and (iii) resolved to recommend that the stockholders of the Company adopt this Agreement by a vote of a majority of the disinterested directors of the Company ((i), (ii), and (iii) being referred to collectively as the "**Company Board Recommendation**").

(b) The Company has all necessary corporate power and authority to execute and deliver this Agreement, to perform its obligations hereunder and to consummate the Transactions. The execution, delivery and performance by the Company of this Agreement, and the consummation by the Company of the Transactions, have been duly authorized and approved by the Company Board of Directors and by the stockholders of the Company, and no other corporate action on the part of the Company is necessary to authorize the execution, delivery and performance by the Company of this Agreement and the consummation of the Transactions. This Agreement has been duly executed and delivered by the Company and, assuming the due authorization, execution and delivery hereof by the other parties hereto, constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except that such enforceability (i) may be limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar Laws of general application affecting or relating to the enforcement of creditors' rights generally and (ii) is subject to general principles of equity, whether considered in a proceeding at law or in equity (the "**Bankruptcy and Equity Exception**").

(c) None of the execution, delivery or performance of this Agreement by the Company, the consummation by the Company of the Transactions, or the compliance by the Company with any of the terms or provisions hereof, will (i) conflict with or violate any provision of the Company Charter Documents or any of its Subsidiary Organizational Documents or (ii) assuming that the authorizations, consents and approvals referred to in Section 3.4 are obtained and the filings referred to in Section 3.4 are made, (x) violate any Law, judgment, writ or injunction of any Governmental Authority applicable to the Company or its Subsidiary or any of their respective properties or assets, or (y) violate, conflict with, result in the loss of any material benefit under, constitute a default (or an event which, with notice or lapse of time, or both, would constitute a default) under, result in the termination of or a right of termination or cancellation under, accelerate the performance required by, or result in the creation of any Lien upon any of the respective material properties or assets of, the Company or its Subsidiary under, any of the terms, conditions or provisions of any Material Contract, Company License or Environmental Permit, to which the Company or its Subsidiary is a party, or by which they or any of their respective properties or assets are bound or affected except, in the case of clauses (x) and (y), for such violations, conflicts, losses, defaults, terminations, cancellations, accelerations or Liens that, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect.

(d) The affirmative vote of the holders of a majority of the outstanding shares of Company Preferred Stock, voting on an as-converted basis with the holders of the outstanding shares of Company Common Stock, and the approval of the holders of a majority of the Series B-1 Preferred Stock, voting as a separate class, in favor of the adoption of this Agreement (the "**Company Stockholder Approval**") are the only votes or approvals of the holders of any class or series of capital stock of the Company or its Subsidiary which is necessary to adopt this Agreement and approve the Transactions.

(e) The minute books of the Company contain complete and accurate records of all meetings and other corporate actions of its stockholders and its Board of Directors and committees thereof since the date of the Company's incorporation, except to the extent that the lack of any such records would not reasonably be expected to have a Company Material Adverse Effect.

Section 3.4 Governmental Approvals, Filings and Consents.

Except for consents, approvals, filings and/or notices pursuant to or required by the DGCL, including the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, no consents or approvals of, or filings, declarations or registrations with, any Governmental Authority are necessary to be obtained or made by the Company or its Subsidiary in connection with the execution, delivery and performance of this Agreement by the Company and the consummation by the Company of the Transactions, other than such other consents, approvals, filings, declarations or registrations that, if not obtained, made or given, would not, individually or in the aggregate, reasonably be expected to impair in any material respect the ability of the Company to perform its obligations hereunder, or prevent or materially impede, interfere with, hinder or delay the consummation of the Transactions.

Section 3.5 Financial Statements; Undisclosed Liabilities; Related Matters.

(a) The audited consolidated financial statements of the Company for the year ended December 31, 2014 and for the year ended December 31, 2013, and the unaudited consolidated financial statements of the Company for the five-month period ended May 31, 2015 (the "**Company Financial Statements**") (i) were prepared in accordance with GAAP (except, in the case of unaudited quarterly statements) applied on a consistent basis during the periods involved (except as may be indicated in the notes thereto) and (iii) fairly present in all material respects the consolidated financial position of the Company and its Subsidiary as of the dates indicated and the consolidated results of their operations and cash flows for the periods then ended (subject, in the case of unaudited quarterly statements, to normal year-end audit adjustments, none of which has been or will be, individually or in the aggregate, material to the Company and its Subsidiary, taken as a whole).

(b) Other than as set forth on Section 3.5(b) of the Company Disclosure Schedule, neither the Company nor its Subsidiary has any liabilities or obligations of any nature (whether accrued, absolute, contingent or otherwise, whether known or unknown) whether or not required, if known, to be reflected or reserved against on a consolidated balance sheet of the Company and its Subsidiary prepared in accordance with GAAP or the notes thereto, except liabilities (i) as and to the extent reflected or reserved against on the unaudited balance sheet of the Company and its Subsidiary as of December 31, 2014 (the "**Company Balance Sheet**" and such date, the "**Balance Sheet Date**") (including the notes thereto), (ii) incurred after the Balance Sheet Date in the ordinary course of business and that are immaterial in amount or significance to the business, financial condition or results of operation of the Company and its Subsidiary taken as a whole, (iii) incurred in connection with the Transactions or (iv) that, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect.

(c) Except as set forth on Section 3.5(c) of the Company Disclosure Schedule, the Company has not incurred any debt obligations, actual or contingent, which, in the aggregate, exceed USD $250,000.

Section 3.6 Absence of Certain Changes or Events.

Since the Balance Sheet Date, (a) there has not been any event, circumstance, change, occurrence or effect that, individually or in the aggregate, has had or would reasonably be expected to have a Company Material Adverse Effect; (b) the Company and its Subsidiary have operated their respective businesses in all material respects in the ordinary course of business consistent with past practice, except as otherwise permitted or required by this Agreement after the date of this Agreement; and (c) there has not occurred any damage, destruction or loss (whether or not covered by insurance) of any tangible asset of the Company or its Subsidiary which, individually or in the aggregate, has had or would reasonably be expected to have a Company Material Adverse Effect.

Section 3.7 Legal Proceedings.

Except as set forth on Section 3.7 of the Company Disclosure Schedule, there is no pending or, to the Knowledge of the Company, threatened, material legal, administrative, arbitral or other proceeding, claim, suit or action against, or governmental or regulatory investigation of, the Company or its Subsidiary, nor is there any injunction, order, judgment, ruling or decree imposed (or, to the Knowledge of the Company, threatened to be imposed) upon the Company, its Subsidiary or the assets of the Company or its Subsidiary, by or before any Governmental Authority. Except as set forth on Section 3.7 of the Company Disclosure Schedule, neither the Company nor its Subsidiary is currently subject to any settlement agreement or stipulation with respect to any legal, administrative, arbitral or other proceeding, claim, suit or action.

Section 3.8 Compliance With Laws; Regulatory Matters.

(a) Section 3.8(a) of the Company Disclosure Schedule contains a true, correct and complete list of all material federal, state, county, local and foreign permits (including, without limitation, 510(k) clearances, Medicare, Medicaid and other provider numbers, certifications and other permits (other than Environmental Permits)) that have been issued to the Company or its Subsidiary and that are currently in effect (the "**Company Licenses**"), and these Company Licenses constitute all the material permits necessary for the conduct of the Current Company Business and use of the Company Facilities as currently used. Each Company License is valid and in full force and effect. To the Knowledge of the Company, each of the Company and its Subsidiary is in compliance in all material respects with all terms and conditions of the Company Licenses. There is no investigation or proceeding pending or, to the Knowledge of the Company, threatened that could result in the termination, revocation, suspension, or restriction of any Company License or the imposition of any fine, penalty or other sanctions for violation of any legal or regulatory requirements relating to any Company License. None of the Company Licenses shall be adversely affected in any material respect by the consummation of the Transactions.

(b) To the Knowledge of the Company, neither the Company nor its Subsidiary has made an untrue statement of a material fact to any Governmental Authority or failed to disclose a material fact required to be disclosed to any Governmental Authority and neither the Company nor its Subsidiary has committed an act, made a statement, or failed to make a statement that, at the time such disclosure was made, might reasonably be likely to provide a basis for any Governmental Authority to invoke the U.S. Food and Drug Administration ("**FDA**") policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities", set forth in 56 Fed. Reg. 46191 (September 10, 1991), as amended, or any similar policy Neither the Company, its Subsidiary nor, to the Knowledge of the Company, any of their respective officers, employees or agents has been convicted of any crime or engaged in any conduct that would reasonably be expected to result in a material debarment or exclusion (i) under 21 U.S.C. Section 335a, or (ii) any similar applicable state Law. To the Knowledge of the Company, no debarment proceedings or investigations in respect of the Current Company Business or Company Products are pending or threatened against the Company, its Subsidiary or any of their respective officers, employees or agents.

(c) All Company Products have been manufactured and marketed in substantial compliance with all applicable provisions of the Federal Food, Drug and Cosmetic Act, 21 U.S.C. § 301 et seq., as amended, and all regulations promulgated thereunder (the "**FDCA**"), the European Union Council Directive 98/79/EC on In Vitro Diagnostic Medical Devices, as amended, and other applicable Laws. Without limiting the generality of the preceding sentence, (i) the Company is legally authorized to manufacture and to sell all Company Products under a 510(k) premarket clearance or CE mark issued in the name of the Company or is exempt from pre-market notification requirements; (ii) all Company Products are produced by properly registered facilities and have been correctly classified and listed with the appropriate Governmental Authority; (iii) all labeling/marketing literature, advertising and web content related to currently marketed Company Products, including indications and intended uses, are covered by the applicable 510(k) clearance or CE mark and meet regulatory requirements; (iv) the Company Products are not subject to recall or regulatory action by a Governmental Authority; (v) the facilities at which the Company Products are manufactured and the processes by which they are manufactured are not subject to any regulatory enforcement actions, including FDA Form 483 inspectional observations, FDA Warning Letters, FDA Untitled Letters, civil penalties, FDA prosecution, or FDA injunction, and comply substantially with the GMP regulations (as defined by FDA at 21 C.F.R. Part 820) and other comparable regulatory requirements; (vi) to the Knowledge of the Company, there are no previous or current product or labeling recalls, remediations, corrections or removals that have not been reported to a Governmental Authority, to the extent such reporting is required, and that any adverse events or reports of death or serious injury related to any Company Product has been reported to a Governmental Authority, to the extent such reporting is required; (vii) all Company Products properly bear or, to the Knowledge of the Company, bore as applicable, a CE mark or otherwise comply or complied, as applicable, in all respects with any similar requirements imposed under the Laws of any foreign country in which the Company Products are or were, as applicable, sold; (viii) the Company has all required records relating to such compliance, including technical files, design history files, clinical studies and validations; and (ix) any clinical studies for Company Product approvals or clearances, currently or previously undertaken by or on behalf of the Company have been authorized or approved by the necessary Governmental Entities, to the extent such authorization or approval is required, and have been conducted in compliance with applicable Laws relating to authorization, approval, conduct and patient rights, and all data submitted in support of the marketing of the Products to any Governmental Entities accurately describes the results of such clinical studies.

(d) Neither the Company nor its Subsidiary is now, nor has been since January 1, 2012, in default or material violation of any Law applicable to the Company or its Subsidiary or by which any property or asset of the Company or its Subsidiary is bound, including, (i) Section 1877 of the Social Security Act, codified as the Ethics in Patient Referrals Act of 1989, 42 U.S.C. § 1395nn, as amended, and all regulations promulgated thereunder (known as the "**Stark Law**"), (ii) Section 1128B(b) of the Social Security Act, codified as the Medicare and Medicaid Patient Protection Act of 1987, 42 U.S.C. § 1320a-7b(b), as amended, and all regulations promulgated thereunder (known as the "**Anti-Kickback Statute**"), (iii) the federal False Claims Act, 31 U.S.C. § 3729, as amended, and all regulations promulgated thereunder, (iv) the Occupational Safety and Health Act of 1970, as amended, and all regulations promulgated thereunder that apply to the Company or its Subsidiary or the Current Company Business (known as "**OSHA**"), (v) the FDCA, (vii) state anti-kickback, fee-splitting and patient brokering Laws, (ix) Information Privacy and Security Laws, and (x) state Laws governing the foregoing.

(e) Neither the Company nor its Subsidiary nor any of their respective officers, directors, managing employees or agents nor, to the Knowledge of the Company, any other employees of the Company or its Subsidiary, have engaged in any activities which are cause for criminal or material civil penalties against, or mandatory or permissive exclusion of, the Company from Medicare, Medicaid, or any other federal health care program under 42 U.S.C. §§ 1320a-7, 1320a-7a, 1320a-7b, or 1395nn, or any similar Law, or the regulations promulgated pursuant to such Laws or related state or local Laws.

(f) The Company's and its Subsidiary's past and present collection, use, analysis, disclosure, retention, storage, security and dissemination of Personal Information comply in all material respects with, and have not violated, (i) any and all applicable Laws, including Information Privacy and Security Laws, (ii) business associate agreements to which the Company or its Subsidiary is a party, (iii) any Person's right of publicity and (iv) each of the Company's and its Subsidiary's privacy policies. To the extent required by applicable Law, each of the Company and its Subsidiary has posted in accordance with Information Privacy and Security Laws a privacy policy governing its use of Personal Information on its website and has complied at all times with such privacy policy.

(g) To the Knowledge of the Company, there are no investigations, suits, claims, actions or proceedings against or affecting the Company or its Subsidiary, pending or threatened, relating to or arising under (i) the FDCA or the regulations of the FDA promulgated thereunder or similar Laws, (ii) Information and Privacy Security Laws, including alleging a violation of any Person's rights under any Information Privacy and Security Laws or the Company's or its Subsidiary's former or current published privacy policies, or (iii) any other applicable Laws. Neither the Company nor its Subsidiary has received any notices from the United States Department of Health and Human Services Office for Civil Rights, Department of Justice, Federal Trade Commission, the Attorney General of any state or any other Governmental Authority relating to any such violations. Neither the Company nor its Subsidiary has acted in or is acting in a manner that would reasonably be expected to trigger a notification or reporting requirement under any applicable Law or business associate agreement to which the Company or its Subsidiary is a party, or any Information Privacy and Security Laws related to the disclosure of Personal Information. To the Knowledge of the Company, there are no facts, circumstances or conditions that would reasonably be expected to form the basis for any investigation, suit, claim, action, proceeding or imposition of any penalties against or affecting the Company of its Subsidiary relating to or arising under any applicable Law that has had or would reasonably be expected to have a Company Material Adverse Effect, individually or in the aggregate.

(h) There are no pending, concluded, since January 1, 2012, or, to the Knowledge of the Company, threatened investigations, suits, claims, actions or proceedings relating to the Company's or its Subsidiary's participation in any payment program, including without limitation, Medicare, Medicaid, and private third party payor programs ("**Payment Programs**"). Neither the Company nor its Subsidiary is subject to, nor, since January 1, 2012, has the Company or its Subsidiary been subjected to, any pre-payment utilization review or other utilization review by any Payment Program. No Payment Program is currently requesting or has requested since September 30, 2011 or, to the Knowledge of the Company, is threatening or has since January 1, 2012 threatened any recoupment, refund, or set-off from the Company or its Subsidiary in excess of $10,000. Since January 1, 2012, no Payment Program has imposed a fine, penalty or other sanction on the Company or its Subsidiary. Since January 1, 2012, neither the Company nor its Subsidiary has been excluded from participation in any Payment Program. All billing practices of the Company and its Subsidiary with respect to all Payment Programs have been in compliance with all Laws applicable to the Company and its Subsidiary in all material respects.

(i) The negotiation, execution and consummation of the Transactions will not breach or otherwise violate any applicable Information Privacy and Security Laws, or current published privacy policy applicable to the Company or its Subsidiary.

(j) Complete and accurate copies of the compliance policies and/or procedures and privacy notices of the Company and its Subsidiary relating to Information Privacy and Security Laws have been furnished or made available to Parent. All of the Company's and its Subsidiary's employees who have access to Personal Information that is subject to Information Privacy and Security Laws have received training with respect to compliance with Information Privacy and Security Laws.

(k) To the extent required under the Information Privacy and Security Laws, the Company and its Subsidiary have taken reasonable measures consistent with reasonable industry practices and in compliance with applicable Laws to ensure that Personal Information is protected against loss and unauthorized access, acquisition, use, modification, disclosure or other misuse, and there has been no known unauthorized access, acquisition, use, disclosure, compromise or other misuse of such Personal Information.

(l) Neither the Company nor its Subsidiary collects, has access to, uses or discloses Personal Information that constitutes protected health information under HIPAA.

(m) Neither the Company nor any of the Company's directors, officers, employees or agents have, directly or indirectly, made, offered, promised or authorized any payment or gift of any money or anything of value to or for the benefit of any "foreign official" (as such term is defined in the U.S. Foreign Corrupt Practices Act (the "**FCPA**")), foreign political party or official thereof or candidate for foreign political office for the purpose of (i) influencing any official act or decision of such official, party or candidate, (ii) inducing such official, party or candidate to use his, her or its influence to affect any act or decision of a foreign governmental authority or (iii) securing any improper advantage, in the case of (i), (ii) and (iii) above in order to assist the Company or any of its affiliates in obtaining or retaining business for or with, or directing business to, any person. Neither the Company nor any of its directors, officers, employees or agents have made or authorized any bribe, rebate, payoff, influence payment, kickback or other unlawful payment of funds or received or retained any funds in violation of any law, rule or regulation. The Company further represents that it has maintained, and has caused each of its subsidiaries and affiliates to maintain, systems of internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems) to ensure compliance with the FCPA or any other applicable anti-bribery or anti-corruption law.

Section 3.9 Warranties and Company Products.

Section 3.9 of the Company Disclosure Schedule sets forth a true and complete list of all outstanding product and service warranties and guarantees with respect to any of the Company Products or services. There are no (a) outstanding or, to the Knowledge of the Company, threatened, product liability claims that relate to any Company Product, (b) outstanding or, to the Knowledge of the Company, threatened, claims for the breach of any express or implied warranty or similar claims with respect to any Company Product or service of the Company other than pursuant to standard warranty obligations (to replace, repair or refund) incurred in the ordinary course of business which are not, individually or in the aggregate, material in amount or (c) design defects, failures to provide adequate warning, manufacturing deficiencies or systemic or chronic problems that would provide the basis for any product liability suit or similar claim or suit against the Company, or any material liabilities for warranty or other material claims or returns with respect to any Company Product relating to any such defects or problems.

Section 3.10 Tax Matters.

(a) Each of the Company and its Subsidiary has timely filed, or has caused to be timely filed on its behalf (taking into account any extension of time within which to file), all material Tax Returns required to be filed by it, and all such filed Tax Returns are correct and complete in all material respects. The Company and each of its Subsidiary has timely paid (or has had paid on its behalf) all material Taxes due and owing (whether or not shown on any return) other than Taxes being contested in good faith by appropriate proceedings and for which adequate reserves have been established on the Company's financial statements in accordance with GAAP.

(b) To the Knowledge of the Company, no deficiency with respect to Taxes has been proposed, asserted or assessed against the Company or its Subsidiary that is not accurately reflected as a liability on the Company Balance Sheet.

(c) The Company and its Subsidiary have disclosed on their respective Tax Returns all positions taken therein that could give rise to a substantial understatement of Tax within the meaning of Section 6662 of the Code or any similar provision of applicable Law, and is in possession of supporting documentation as may be required under any such provision.

(d) The Company and each of its Subsidiary have withheld and paid all material Taxes required to have been withheld and paid by them in connection with any amounts paid or owing to any employee, independent contractor, creditor, stockholder, or other third party.

(e) Neither the Company nor its Subsidiary has been subject to a written claim by a taxing authority in a jurisdiction where the Company or its Subsidiary does not file Tax Returns that it is or may be subject to taxation by that jurisdiction.

(f) Neither the Company nor its Subsidiary has constituted either a "distributing corporation" or a "controlled corporation" (within the meaning of Section 355(a)(1)(A) of the Code) in a distribution of stock qualifying for tax-free treatment under Section 355 of the Code.

(g) No audit or other administrative or court proceedings are pending with any Governmental Authority with respect to Taxes of the Company or its Subsidiary and no written notice thereof has been received by the Company or its Subsidiary.

(h) Neither the Company nor its Subsidiary is a party to any contract, agreement, plan or other arrangement that, individually or collectively, or whether alone or in connection with any other event, could reasonably be expected to give rise to the payment of any amount which would not be deductible by reason of Section 280G of the Code or would be subject to withholding under Section 4999 of the Code.

(i) Except as set forth in Section 3.10(i) of the Company Disclosure Schedule, the Company has delivered or made available to Parent correct and complete copies of (i) all income and franchise Tax Returns of the Company and its Subsidiary for the preceding three taxable years and (ii) any audit report issued within the last three years (or otherwise with respect to any audit or proceeding in progress) relating to income and franchise Taxes of the Company or its Subsidiary.

(j) As of the Closing, neither the Company nor its Subsidiary will be a party to any tax allocation, tax sharing, tax indemnity or similar agreement with respect to Taxes (other than agreements with clients or vendors containing tax indemnification or tax allocation provisions entered into by the Company or its Subsidiary in the ordinary course and consistent with past practices).

(k) There are no Liens for Taxes (other than Taxes not yet due and payable or which are being contested in good faith by appropriate proceedings and for which adequate reserves have been established on the Company's financial statements in accordance with GAAP) upon any of the assets of the Company or its Subsidiary.

(l) Neither the Company nor its Subsidiary has ever been a member of an "affiliated group" (as defined in Section 1504(a) of the Code) except for any group of which the Company was the common parent corporation.

(m) Neither the Company nor its Subsidiary will be required to include any item of income in, or exclude any deduction in calculating, taxable income for any taxable period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for a taxable period ending on or prior to the Closing Date; (ii) "closing agreement" as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or foreign Tax law) executed on or prior to the Closing Date; or (iii) installment sale or open transaction disposition made on or prior to the Closing Date.

(n) Neither the Company nor its Subsidiary has waived any statute of limitations in respect of any material Taxes or agreed to any extension of time with respect to an assessment or deficiency for material Taxes (other than pursuant to extensions of time to file Tax Returns obtained in the ordinary course).

(o) Neither the Company nor its Subsidiary is required to make any disclosure to the Internal Revenue Service ("**IRS**") with respect to a "listed transaction" pursuant to Section 1.6011-4(b)(2) of the Treasury Regulations promulgated under the Code.

(p) The Company has not been a "United States real property holding corporation" within the meaning of Section 897 of the Code during the five-year period ending on the Closing Date.

(q) The unpaid Taxes of the Company and its Subsidiary (A) did not as of the Balance Sheet Date, exceed the reserve for Tax liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth on the face of the Company Balance Sheet (rather than in any notes thereto) and (B) do not exceed that reserve as adjusted for the passage of time through the Closing Date in accordance with the past custom and practice of the Company and its Subsidiary in filing their Tax Returns.

(r) The representations in this Section 3.10 refer only to past activities of the Company and are not intended to serve as representations and warranties regarding, nor can they be relied upon with respect to, Taxes attributable to a taxable period beginning after the Effective Time.

(s) For purposes of this Agreement: (x) "**Taxes**" shall mean (A) all federal, state, local or foreign taxes, charges, fees, imposts, levies or other assessments, including all net income, gross receipts, capital, sales, use, ad valorem, value added, transfer, franchise, profits, inventory, capital stock, license, withholding, payroll, employment, social security, unemployment, excise, severance, stamp, occupation, premium, property, windfall profits and estimated taxes, customs duties, fees, assessments and charges of any kind whatsoever, (B) all interest, penalties, fines, additions to tax or additional amounts imposed by any Governmental Authority in connection with any item described in clause (A), and (C) any transferee liability in respect of any items described in clauses (A) and/or (B) payable by reason of contract, assumption, transferee liability, operation of Law, Treasury Regulation Section 1.1502-6(a) (or any predecessor or successor thereof of any analogous or similar provision under Law) or otherwise, and (y) "**Tax Returns**" shall mean any return, report, claim for refund, estimate, information return or statement or other similar document relating to or required to be filed with any Governmental Authority with respect to Taxes, including any schedule or attachment thereto, and including any amendment thereof.

Section 3.11 Employee Benefits and Labor Matters.

(a) Section 3.11(a) of the Company Disclosure Schedule sets forth a correct and complete list as of the date of this Agreement of: (i) all "employee benefit plans" (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**")) and (ii) all other employee benefit plans, pensions (including any annuities), policies, agreements, arrangements, payroll practices, or benefits with respect to which the Company or its Subsidiary has any obligation or liability, contingent or otherwise, including (A) employment, individual consulting or other compensation agreements, (B) bonus or other incentive compensation, (C) stock purchase, equity or equity-based compensation, (D) deferred compensation, (E) director, officer or employee loans, and (F) change in control, retention, termination, retirement, severance, death, sick leave, vacation, salary continuation, health or life insurance and educational assistance plans, policies, agreements, arrangements or benefits (collectively, the "**Company Plans**"). No Company Plan is or has been subject to Title IV of ERISA or is or has been a "multiemployer plan," as defined in Section 3(37) of ERISA (a "**Multiemployer Plan**"), or is or has been subject to Sections 4063 or 4064 of ERISA.

(b) Except as set forth in Section 3.11(b) of the Company Disclosure Schedule, correct and complete copies of the following documents with respect to each of the Company Plans have been delivered or been made available to Parent by the Company to the extent applicable: (i) any plans and related trust documents, insurance contracts or other funding arrangements, and all amendments thereto; (ii) the most recent Forms 5500 and all schedules thereto, (iii) the most recent actuarial report, if any; (iv) the most recent IRS determination or opinion letter; (v) the most recent summary plan descriptions; (vi) written summaries of all non-written Company Plans; and (vii) all material correspondence with a Governmental Authority.

(c) The Company Plans have been maintained, in all material respects, in accordance with their terms and with all applicable provisions of ERISA, the Code and other Laws.

(d) The Company Plans intended to qualify under Section 401 or for other tax-favored treatment under Subchapter B of Chapter 1 of Subtitle A of the Code have received a determination from the IRS that they are so qualified or are the subject of a favorable opinion letter, and any trusts intended to be exempt from federal income taxation under the Code are so exempt. Nothing has occurred with respect to the operation of the Company Plans that could reasonably be expected to cause the loss of such qualification or exemption, or the imposition of any liability, penalty or tax under ERISA or the Code.

(e) All contributions required to have been made under any of the Company Plans or by Law (without regard to any waivers granted under Section 412 of the Code), have been timely made.

(f) There are no pending actions, claims or lawsuits arising from or relating to the Company Plans or the assets thereof (other than routine benefit claims), nor does the Company have any Knowledge of facts that could reasonably be expected to form the basis for any such claim or lawsuit that would, or would reasonably be expected to be, material to the Company and its Subsidiary, taken as a whole.

(g) Except as set forth on Section 3.11(g) of the Company Disclosure Schedule, none of the Company Plans provide for post-employment life insurance or health insurance coverage or benefits for any participant or any beneficiary of a participant, except as may be required under Part 6 of the Subtitle B of Title I of ERISA and at the expense of the participant or the participant's beneficiary.

(h) Except as set forth on Section 3.11(h) of the Company Disclosure Schedule, neither the execution and delivery of this Agreement nor the consummation of the Transactions, whether alone or in connection with any other event, will (i) result in any payment becoming due to any employee of the Company or its Subsidiary, (ii) increase any benefits otherwise payable under any Company Plan, (iii) result in the acceleration of the time of payment or vesting of any rights with respect to benefits under any such plan, or (iv) require any contributions or payments to fund any obligations under any Company Plan.

(i) No individual who performs services for the Company or its Subsidiary (other than through a Contract with an organization other than such individual) should be treated as an employee of the Company or its Subsidiary for federal income tax purposes who is not in fact so treated for such purposes.

(j) All arrangements that would be considered "deferred compensation" for purposes of Section 409A of the Code are in compliance with Section 409A of the Code. Each Company Plan that is subject to Section 409A of the Code has been administered in compliance with the applicable requirements of Section 409A of the Code and all applicable IRS and Treasury Department guidance issued thereunder. None of the Transactions will result in a deferral of compensation under any Company Plan that is subject to Section 409A of the Code. Each Option issued under any Company Plan (or any predecessor plan providing for the issuance of options to employees of the Company or its Subsidiary) that has been exercised has been properly treated by the Company as an incentive stock option under Code Section 422 or as a nonstatutory option, as applicable. All Options granted under any Company Plan were granted with an exercise price at least equal to the fair market value of the Company Common Stock on the date of grant of such Option and no Option has been amended to reduce the exercise price from that in effect on the date of grant (except pursuant to non-discretionary antidilution provisions governing such Option).

(k) To the Knowledge of the Company, none of the employees of the Company or its Subsidiary is represented in his or her capacity as an employee of the Company or its Subsidiary by any labor organization. Neither the Company nor its Subsidiary has recognized any labor organization, nor, to the Knowledge of the Company, has any labor organization been elected as the collective bargaining agent of any employees, nor has the Company or its Subsidiary entered into any collective bargaining agreement or union contract recognizing any labor organization as the bargaining agent of any employees. There is no union organization activity involving any of the employees of the Company or its Subsidiary pending or, to the Knowledge of the Company, threatened, nor has there ever been union representation involving any of the employees of the Company or its Subsidiary. There is no picketing pending or, to the Knowledge of the Company, threatened, and there are no strikes, slowdowns, work stoppages, other job actions, lockouts, arbitrations, grievances or other labor disputes involving any of the employees of the Company or its Subsidiary pending or, to the Knowledge of the Company, threatened. There are no complaints, charges or claims against the Company or its Subsidiary pending or, to the Knowledge of the Company, threatened to be brought or filed with any Governmental Authority or arbitrator based on, arising out of, in connection with, or otherwise relating to the employment or termination of employment or failure to employ by the Company or its Subsidiary, of any individual. The Company and its Subsidiary are in compliance with all Laws relating to the employment of labor, including all such Laws relating to wages, hours, the Worker Adjustment and Retraining Notification Act and any similar state or local "mass layoff" or "plant closing" law ("**WARN**"), collective bargaining, discrimination, civil rights, safety and health, workers' compensation and the collection and payment of withholding and/or social security taxes and any similar tax, except for any such non-compliance that has not had, and would not reasonably be expected to have, a Company Material Adverse Effect. There has been no "mass layoff" or "plant closing" (as defined by WARN) with respect to the Company or its Subsidiary since September 30, 2011.

Section 3.12 Environmental Matters.

(a) Except as set forth on Section 3.12(a) of the Company Disclosure Schedule, the Company and its Subsidiary are in material compliance with Environmental Laws, and, except for any matters that have been fully and finally resolved without further material liability for Environmental Damages to the Company and its Subsidiary, at all other times, have been, in material compliance with all Environmental Laws.

(b) Neither the Company nor its Subsidiary has assumed by Contract any material liability for Environmental Damages under any Environmental Law. There are no pending or, to the Knowledge of the Company, threatened Environmental Claims involving material Environmental Damages against the Company or its Subsidiary. Except as set forth on Section 3.12(b) of the Company Disclosure Schedule, to the Knowledge of the Company, there are no facts, circumstances, or conditions existing, initiated or occurring that would reasonably be expected to (i) form the basis of an Environmental Claim involving material Environmental Damages against the Company or its Subsidiary or (ii) cause the Company or its Subsidiary to incur material Environmental Damages.

(c) To the Knowledge of the Company, the Company and its Subsidiary maintain all material Environmental Permits necessary to operate the Current Company Business (including the Company Facilities), and Section 3.12(c) of the Company Disclosure Schedule sets forth a complete list of all such material Environmental Permits.

(d) Except as set forth in Section 3.12(d) of the Company Disclosure Schedule, to the Knowledge of the Company, none of the following are present at the Company Facilities, including the Owned Real Property and the Leased Real Property: (A) underground storage tanks regulated under Environmental Laws; (B) any landfill or other solid waste management unit for the treatment or disposal of Hazardous Materials; (C) filled in land or jurisdictional or other regulated wetlands; (D) polychlorinated biphenyls; (E) toxic mold; (F) lead-based paint; or (G) asbestos-containing materials.

(e) Except as would not reasonably be expected to result in material liability to the Company or its Subsidiary, there has been no Release of Hazardous Materials at, on, under or from: (A) the Owned Real Property; (B) to the Knowledge of the Company, any real property formerly owned, operated or leased by the Company or its Subsidiary, during the period of such ownership, operation, or tenancy; or (C) to the Knowledge of the Company, the Leased Real Property.

(f) The Company and its Subsidiary have delivered or made available to Parent copies of all environmental assessments, reports and audits in their possession or under their control that relate to their compliance with Environmental Laws or the environmental condition of any real property that the Company or its Subsidiary has owned, operated or leased.

(g) Neither the Company nor its Subsidiary has received written notice that the Owned Real Property, the Leased Real Property, or any property to which Hazardous Materials originating on or from such properties or the businesses or assets of the Company or any Subsidiary has been sent for treatment or disposal, is listed or proposed to be listed on the National Priorities List or Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) or on any other governmental database or list of properties that may or do require Remediation under Environmental Laws.

(h) Except as set forth in Section 3.12(h) of the Company Disclosure Schedule, no authorization, notification, recording, filing, consent, waiting period, Remediation, or approval is required under any Environmental Law in order to consummate the Transactions.

(i) For purposes of this Agreement:

(i) "**Environmental Claims**" means all demands, claims, Liens, actions or causes of action, assessments, complaints, directives, citations, information requests issued by government authority, legal proceedings, orders, or notices of potential responsibility pursuant to Environmental Laws.

(ii) **"Environmental Damages"** means losses, damages (including, without limitation, diminution in value), liabilities, costs and expenses (including, without limitation, reasonable attorneys' and experts' fees and disbursements), sanctions and penalties, pursuant to Environmental Laws or with respect to Hazardous Materials.

(iii) "**Environmental Laws**" means all Laws relating to pollution or Hazardous Materials or protection of human health or the environment, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, as amended.

(iv) "**Environmental Permits**" means all governmental permits, licenses, certificates and approvals required under Environmental Laws.

(v) "**Hazardous Materials**" means any waste, material, or substance that is listed, regulated, characterized, classified, or defined as "hazardous", "toxic", "pollutant", "contaminant" or words of similar meaning or effect under any Environmental Law and includes any asbestos, toxic mold, radioactive material, polychlorinated biphenyls, petroleum or petroleum-derived substance or waste.

(vi) "**Release**" means any presence, emission, spill, seepage, leak, escape, leaching, discharge, injection, pumping, pouring, emptying, dumping, migration, release or disposal of Hazardous Materials from any source into or upon the environment.

(vii) "**Remediation**" means any abatement, investigation, clean-up, removal action, remedial action, restoration, repair, response action, corrective action, monitoring, sampling and analysis, installation, reclamation, closure, or post-closure in connection with the suspected, threatened or actual Release of Hazardous Materials.

Section 3.13 Contracts.

(a) Except for this Agreement and as set forth on Section 3.13(a) of the Company Disclosure Schedule, as of the date of this Agreement neither the Company nor any Subsidiary is a party to or bound by any contract, arrangement, commitment or understanding that, as of the date hereof:

(i) is a customer, client, distribution, marketing, sales or supply Contract (a) that involved payments aggregating in excess of $50,000 during the fiscal year ended December 31, 2014 or (b) pursuant to which the Company would reasonably be expected to make payments in excess of $50,000 during the fiscal year ending December 31, 2015;

(ii) contains any non-compete or exclusivity provisions that purport to (A) limit, curtail or restrict the ability of the Company or any of its existing or future Subsidiary or Affiliates to compete in any geographic area or line of business in any material respect or (B) restrict the Persons to whom the Company or any of its existing or future Subsidiary or Affiliates may sell products or deliver services in any material respect;

(iii) creates any partnership, limited liability company, joint venture, or other similar agreement or Contract with a third party;

(iv) provides for the acquisition, sale, lease, exchange or option to purchase any material properties or assets of the Company or any Subsidiary;

(v) provides for the Company or any Subsidiary to indemnify or hold harmless any director or officer of the Company or any Subsidiary or any Affiliate of the Company;

(vi) is a loan or credit agreement, mortgage, indenture, note or other Contract or instrument evidencing indebtedness for borrowed money by the Company or its Subsidiary or any Contract or instrument pursuant to which indebtedness for borrowed money may be incurred or is guaranteed by the Company or its Subsidiary, and including any Contract regarding any bonding facility or financial assurance program;

(vii) provides for interest rate caps, collars or swaps, currency hedging or any other similar agreement to which the Company or any Subsidiary of the Company is a party;

(viii) relates to the voting or registration for sale under the Securities Act of any securities of the Company;

(ix) to the extent material to the business or financial condition of the Company and its Subsidiary, taken as a whole, is a (1) lease or rental Contract, (2) consulting Contract, (3) indemnification Contract for the benefit of the Company other than related to the Company Products or services, (4) license or royalty Contract or any other Contract relating to any Intellectual Property Rights, or (5) Contract granting a right of first refusal or first negotiation;

(x) provides for the treatment, storage, disposal and/or transportation of Hazardous Materials;

(xi) is otherwise material to the operation, or is outside the ordinary course, of the Company's and its Subsidiary' businesses; or

(xii) represents any commitment or agreement to enter into any of the foregoing (the Contracts required to be listed on Section 3.13(a) of the Company Disclosure Schedule are each referred to herein as a "**Material Contract**" and collectively as the "**Material Contracts**").

(b) The Company has heretofore delivered or made available to Parent correct and complete copies of each Material Contract in existence as of the date hereof, together with any and all amendments and supplements thereto and material "side letters" and similar documentation relating thereto.

(c) Each of the Material Contracts is in full force and effect and is enforceable in accordance with its terms by the Company and each of its Subsidiary that is a party thereto, subject to the Bankruptcy and Equity Exception. Except as set forth on Section 3.3(c) of the Company Disclosure Schedule, no approval, consent or waiver of any Person is needed to continue any Material Contract in full force and effect following the consummation of the Transactions. Neither the Company nor its Subsidiary is in default under any Material Contract, nor, to the Knowledge of the Company, does any condition exist that, with notice or lapse of time or both, would constitute a default thereunder by the Company and its Subsidiary party thereto, except for such defaults as, individually or in the aggregate, would not reasonably be expected to be material to the Company and its Subsidiary, taken as a whole. To the Knowledge of the Company, no other party to any Material Contract is in default thereunder, nor does any condition exist that with notice or lapse of time or both would constitute a default by any such other party thereunder, except for such defaults as, individually or in the aggregate, would not reasonably be expected to be material to the Company and its Subsidiary, taken as a whole. Neither the Company nor its Subsidiary has received any written notice of termination or cancellation under any Material Contract.

Section 3.14 Title to Properties.

(a) Section 3.14(a) of the Company Disclosure Schedule contains a true and complete list of all real property currently owned by the Company or its Subsidiary (collectively, the "**Owned Real Property**"), and for each parcel of Owned Real Property, contains a correct street address of such Owned Real Property.

(b) Section 3.14(b) of the Company Disclosure Schedule contains a true and complete list of all real property leased, subleased, licensed or otherwise occupied (whether as tenant, subtenant or pursuant to other occupancy arrangements) by the Company or its Subsidiary (collectively, including the improvements thereon, the "**Leased Real Property**"), and for each Leased Real Property, identifies the street address of such Leased Real Property. True and complete copies of all agreements under which the Company or any Subsidiary thereof is the landlord, sublandlord, tenant, subtenant, or occupant (each a "**Real Property Lease**") that have not been terminated or expired as of the date hereof have been delivered or made available to Parent.

(c) The Company or one of its Subsidiary has good and valid title to all Owned Real Property and the Company and its Subsidiary have good and valid title to, or in the case of leased properties and assets, valid leasehold interests in, all of their other material tangible properties and assets, free and clear of all Liens except (i) statutory Liens securing payments not yet due, (ii) security interests, mortgages and pledges that secure indebtedness that is reflected in the most recent consolidated financial statements of the Company, and (iii) such other imperfections or irregularities of title or other Liens that, individually or in the aggregate, would not reasonably be expected to materially affect the use of the properties or assets subject thereto or otherwise materially impair business operations as presently conducted or as currently proposed by the Company's management to be conducted.

(d) The Company or one of its Subsidiary is the lessee or sublessee of all Leased Real Property. Each of the Company and its Subsidiary enjoys peaceful and undisturbed possession under all Real Property Leases.

(e) The current use, occupancy and operation of each parcel of Owned Real Property and Leased Real Property by the Company or its Subsidiary is in compliance in all material respects with all applicable Laws, deeds, easements, restrictions, leases, licenses, permits or other arrangements or requirements (including any building or zoning codes) affecting such Owned Real Property or Leased Real Property.

Section 3.15 Intellectual Property.

(a) For purposes of this Agreement:

(i) "**Company Intellectual Property**" means all Intellectual Property Rights owned or licensed by the Company or its Subsidiary and used in the conduct of the business of the Company or its Subsidiary, pertaining to the Company Products or methods or processes used to manufacture the Company Products, or owned by the Company or its Subsidiary.

(ii) "**Intellectual Property Rights**" shall mean all of the rights arising from or in respect of the following, whether protected, created or arising under the Laws of the United States or any foreign jurisdiction: (A) patents, patent applications, any reissues, reexaminations, divisionals, provisionals, substitutions, renewals, continuations, continuations-in-part and extensions thereof (collectively, "**Patents**"); (B) registered or unregistered trademarks, service marks, trade dress rights, trade names, Internet domain names, identifying symbols, logos, emblems, signs or insignia, and including all goodwill associated with the foregoing (collectively, "**Marks**"); (C) copyrights, whether registered or unregistered (including copyrights in computer software programs), mask work rights, works of authorship and moral rights, and all registrations, applications and renewals therefor (collectively, "**Copyrights**"); (D) confidential and proprietary information, or non-public processes, designs, specifications, technology, know-how, techniques, formulas, invention disclosures, inventions (whether or not patentable and whether or not reduced to practice), concepts, trade secrets, discoveries, ideas, research and development, compositions, manufacturing and production processes, technical data and information, customer lists, supplier lists, pricing and cost information, and business and marketing plans and proposals, in each case excluding any rights in respect of any of the foregoing that comprise or are protected by Patents (collectively, "**Trade Secrets**"); and (E) all applications, registrations and permits related to any of the foregoing clauses (A) through (D).

(iii) "**Software**" means computer programs, including any and all software implementations of algorithms, models and methodologies whether in source code, object code or other form, databases and compilations, including any and all data and collections of data, descriptions, flow-charts and other work product used to design, plan, organize and develop any of the foregoing and all documentation, including user manuals and training materials, related to any of the foregoing.

(b) Section 3.15(b) of the Company Disclosure Schedule sets forth an accurate and complete list of all Patents, pending applications for Patents, registered Marks, pending applications for registrations of any Marks, other material Marks, and registered Copyrights owned or filed by the Company or its Subsidiary and included in the Company Intellectual Property, identifying for each such item of Company Intellectual Property, if applicable, (a) the record owner, (b) the status, and (c) the jurisdictions in which each item has been issued or registered or in which any application for such issuance and registration has been filed.

(c) Other than readily available "off-the-shelf" commercial Software licenses, Section 3.15(c) of the Company Disclosure Schedule sets forth a complete and accurate list of all license agreements granting any right or license to use or practice any rights under any Company Intellectual Property to which the Company or its Subsidiary is a party or otherwise bound (collectively, the "**License Agreements**"). The License Agreements are valid and binding obligations of the Company, or its Subsidiary, as the case may be, enforceable in accordance with their respective terms, and, to the Knowledge of the Company, there exists no event or condition that will result in a violation or breach of, or constitute (with or without due notice or lapse of time or both) a default by the Company or its Subsidiary, as the case may be, under any such License Agreement. The Company and/or one of its Subsidiary either owns (free and clear of all Liens), licenses under the License Agreements listed on Section 3.15(c) of the Company Disclosure Schedule, or otherwise possesses all necessary rights to use, all Company Intellectual Property. The Company Intellectual Property owned by or licensed to the Company and/or its Subsidiary include all Intellectual Property Rights necessary to enable the Company and its Subsidiary to conduct their respective businesses in the manner in which such businesses are currently being conducted.

(d) The use or practice of the Company Intellectual Property by the Company or its Subsidiary and the manufacturing, licensing, marketing, importation, offer for sale, sale or use of the Company's products or services or the Company Intellectual Property, and the operation of the Company's and its Subsidiary' businesses do not, to the Knowledge of the Company, infringe, violate, constitute an unauthorized use of or misappropriate any Intellectual Property Rights of any third Person. Neither the Company nor its Subsidiary is a party to or the subject of any pending or, to the Knowledge of the Company, threatened suit, action, investigation or proceeding which involves a claim (i) against the Company or its Subsidiary of infringement, misappropriation, unauthorized use, or violation of any Intellectual Property Rights of any Person, or challenging the ownership, use, validity or enforceability of any Company Intellectual Property or (ii) contesting the right of the Company or its Subsidiary to use, sell, exercise, license, transfer, dispose of or commercially exploit any Company Intellectual Property, or any products, processes or materials covered thereby in any manner. The Company has not received written notice of any such threatened claim.

(e) To the Knowledge of the Company, no Person (including employees and former employees of the Company or its Subsidiary) is infringing, violating, misappropriating or otherwise misusing any Company Intellectual Property, and neither the Company nor its Subsidiary has made any such claims against any Person (including employees and former employees of the Company or its Subsidiary).

(f) To the Knowledge of the Company, no Trade Secret or any other non-public, proprietary information material to the businesses of the Company or its Subsidiary as presently conducted has been authorized by the Company to be disclosed or has been actually disclosed by the Company or its Subsidiary to any third Person other than pursuant to a written confidentiality or written non-disclosure agreement restricting the disclosure and use of the Company Intellectual Property. The Company and its Subsidiary have taken reasonable steps to protect and preserve the confidentiality and value of all Trade Secrets of the Company or its Subsidiary. Each employee, consultant and independent contractor of the Company and each of its Subsidiary who has had access to any material Trade Secret of the Company or its Subsidiary has entered into a written non-disclosure agreement with the Company and/or its Subsidiary in a form provided or made available to Parent. Each employee, consultant and independent contractor of the Company and each of its Subsidiary who has contributed to the development of any Company Intellectual Property has entered into a written invention assignment agreement with the Company and/or its Subsidiary in a form provided or made available to Parent.

(g) Except as set forth on Section 3.15(g) of the Company Disclosure Schedule with respect to lapsed issued Patents, all necessary registration, maintenance, renewal and other relevant filing fees due through the date hereof in connection with issued or registered Patents, Marks or Copyrights included as part of the Company Intellectual Property owned by the Company or its Subsidiary have been timely paid, and all necessary documents and certificates in connection with issued or registered Patents, Marks or Copyrights included as part of the Company Intellectual Property owned by the Company or its Subsidiary have been timely filed with the relevant patent, trademark, copyright or other relevant Governmental Authorities in the United States or foreign jurisdictions, as the case may be, for the purpose of maintaining such issued or registered Patents, Marks or Copyrights included as part of the Company Intellectual Property, except for any such fees or filings the failure of which to pay or to timely file would not reasonably be expected to have a Company Material Adverse Effect.

(h) Except as disclosed on Section 3.15(h) of the Company Disclosure Schedule or for readily available "off-the-shelf" commercial Software licenses, neither the Company nor any Subsidiary is required, obligated, or under any liability whatsoever, to make any payments by way of royalties, fees or otherwise to any owner, licensor of, or other claimant to any Intellectual Property Right, or other third Person, with respect to the use thereof or in connection with the conduct of the businesses of the Company and its Subsidiary as currently conducted.

(i) Section 3.15(i) of the Company Disclosure Schedule sets forth a correct and complete list of all Software other than readily available "off-the-shelf" commercial Software licenses that is material to the operation of the business of the Company or its Subsidiary, identifying whether each such item of Software is (i) owned exclusively by the Company or its Subsidiary, or (ii) used by the Company or its Subsidiary pursuant to an identified license agreement.

(j) The Company and its Subsidiary own, lease or license all Software, hardware, databases, computer equipment and other information technology that are necessary for the operations of the Company's and its Subsidiary' businesses.

(k) The consummation of the Transactions will not result in the loss or impairment of the Surviving Corporation's right to own or use any Company Intellectual Property owned by the Company or its Subsidiary, or, except as set forth on Section 3.15(k) of the Company Disclosure Schedule, any of the Company Intellectual Property licensed to the Company or its Subsidiary pursuant to a License Agreement, except for such loss or impairment as, individually or in the aggregate, is not, and would not reasonably be expected to be, material to the Company and its Subsidiary, taken as a whole.

(l) Neither this Agreement nor the Transactions will result in the grant of any right or license with respect to any Company Intellectual Property to any third Person pursuant to any Contract to which the Company or its Subsidiary is a party or by which any assets or properties of the Company or its Subsidiary is bound.

(m) Except as set forth on Section 3.15(m) of the Company Disclosure Schedule, no Company Intellectual Property has been developed with funding received under a Contract of the Company or its Subsidiary with (i) any Governmental Authority (acting on its own behalf or on behalf of another country or international organization), (ii) any prime contractor performing under a prime contract with any Governmental Authority, or (iii) any subcontractor performing under a prime contract with any Governmental Authority.

Section 3.16 Insurance.

Section 3.16 of the Company Disclosure Schedule sets forth a correct and complete list of all insurance policies (including information on the premiums payable in connection therewith and the scope and amount of the coverage provided thereunder) maintained by the Company or its Subsidiary (the "**Policies**"). Neither the Company nor its Subsidiary is in material breach or default, and neither the Company nor its Subsidiary have taken any action or failed to take any action which, with notice or the lapse of time, would constitute such a breach or default, or permit termination or modification, of any of the Policies. No notice of cancellation or termination has been received by the Company with respect to any of the Policies. The consummation of the Transactions, in and of itself, will not cause the termination, revocation or cancellation of any Policy.

Section 3.17 Customers.

Section 3.17 of the Company Disclosure Schedule sets forth a list of the 10 largest customers of the Company and its Subsidiary, as measured by the dollar amount of purchases therefrom or thereby, during each of the fiscal years ended December 31, 2012, 2013 and 2014, showing the approximate total sales by the Company and its Subsidiary to each such customer during such period. Since the Balance Sheet Date through the date of this Agreement, (i) no customer listed on such schedule has terminated its relationship with the Company or its Subsidiary or materially reduced or changed the pricing or other terms of its business with the Company or its Subsidiary and (ii) to the Knowledge of the Company, no customer on such schedule has notified the Company or its Subsidiary in writing that it intends to terminate or materially reduce or change the pricing or other terms of its business with the Company or its Subsidiary.

Section 3.18 Brokers and Other Advisors.

Except for BroadOak Partners (the "**Financial Advisor**"), the fees and expenses of which will be paid by the Company, no broker, investment banker, financial advisor or other Person is entitled to any broker's, finder's, financial advisor's or other similar fee or commission, or the reimbursement of expenses, in connection with the Transactions based upon arrangements made by or on behalf of the Company or its Subsidiary. The Company has heretofore delivered to Parent a correct and complete copy of the Company's engagement letter with the Financial Advisor, which letter describes all fees payable to the Financial Advisor in connection with the Transactions, all agreements under which any such fees or any expenses are payable and all indemnification and other agreements related to the engagement of the Financial Advisor (the "**Engagement Letter**").

Section 3.19 State Takeover Statutes; No Rights Plan.

No "fair price," "moratorium," "control share acquisition" or other similar antitakeover statute or regulation enacted under state or federal Laws in the United States applicable to the Company is applicable to the Transactions. The Company is not a party to any rights agreement, rights plan, "poison pill" or similar agreement or plan (collectively, "**Rights Plan**") providing for the issuance of any preferred or common stock purchase rights, nor has the Company issued to its stockholders any preferred or common stock purchase rights pursuant to any such Rights Plan or otherwise.

Section 3.20 Delaware Law Compliance.

Since January 1, 2013, the Company has conducted all financings, and has conducted the transactions contemplated by this Agreement, in accordance with the DGCL, except where the failure to do so would not have reasonably been expected to have a Company Material Adverse Effect.

Section 3.21 No Additional Representations.

Except for the representations and warranties made by the Company contained in this Agreement (including in Article III and the related portions of the Company Disclosure Schedule), the Company has not made and makes no other express or implied representation or warranty, either written or oral, on behalf of the Company or Company Subsidiary or in connection with this Agreement or the Transactions.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Parent and Merger Sub jointly and severally represent and warrant to the Company as follows:

Section 4.1 Organization, Standing and Corporate Power.

Each of Parent and Merger Sub is a corporation duly organized, validly existing and in good standing under the Laws of the jurisdiction in which it is incorporated.

Section 4.2 Authority; Noncontravention.

(a) Each of Parent and Merger Sub has all necessary corporate power and authority to execute and deliver this Agreement, to perform their respective obligations hereunder and to consummate the Transactions. The execution, delivery and performance by Parent and Merger Sub of this Agreement, and the consummation by Parent and Merger Sub of the Transactions, have been duly authorized and approved by their respective Boards of Directors (and prior to the Effective Time will be adopted by Parent as the sole stockholder of Merger Sub) and no other corporate action on the part of Parent and Merger Sub is necessary to authorize the execution, delivery and performance by Parent and Merger Sub of this Agreement and the consummation of the Transactions. This Agreement has been duly executed and delivered by Parent and Merger Sub and, assuming due authorization, execution and delivery hereof by the Company, constitutes a legal, valid and binding obligation of each of Parent and Merger Sub, enforceable against each of them in accordance with its terms, subject to the Bankruptcy and Equity Exception.

(b) None of the execution, delivery or performance of this Agreement by Parent and Merger Sub, nor the consummation by Parent or Merger Sub of the Transactions, nor compliance by Parent or Merger Sub with any of the terms or provisions hereof, will (i) conflict with or violate any provision of the certificate of incorporation or bylaws of Parent or Merger Sub or (ii) assuming that the authorizations, consents and approvals referred to in Section 4.3 are obtained and the filings referred to in Section 4.3 are made, (x) violate any Law, judgment, writ or injunction of any Governmental Authority applicable to Parent, Merger Sub or any of their Subsidiary or any of their respective properties or assets, or (y) violate, conflict with, result in the loss of any benefit under, constitute a default (or an event which, with notice or lapse of time, or both, would constitute a default) under, result in the termination of or a right of termination or cancellation under, accelerate the performance required by, or result in the creation of any Lien upon any of the respective properties or assets of, Parent, Merger Sub or any of their respective Subsidiary under, any of the terms, conditions or provisions of any Contract to which Parent, Merger Sub or any of their respective Subsidiary is a party, or by which they or any of their respective properties or assets may be bound or affected except, in the case of clauses (x) or (y), for such violations, conflicts, losses, defaults, terminations, cancellations, accelerations or Liens as, individually or in the aggregate, would not, or would not reasonably be expected to, have a Parent Material Adverse Effect. A "**Parent Material Adverse Effect**" shall mean any event, circumstance, change, occurrence or effect that would reasonably be expected to prevent or materially delay the ability of Parent or Merger Sub to consummate the Transactions on a timely basis.

Section 4.3 Governmental Approvals, Filings and Consents.

Except for consents, approvals, filings and/or notices pursuant to or required by (a) the SEC, including any filings required under, and compliance with the applicable requirements of, the Exchange Act and the rules and regulations promulgated thereunder, (b) the rules and regulations of the NASDAQ, and (c) the DGCL, including the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, no consents or approvals of, or filings, declarations or registrations with, any Governmental Authority are necessary to be obtained or made by Parent or Merger Sub in connection with the execution and delivery of this Agreement by Parent and Merger Sub or the consummation by Parent and Merger Sub of the Transactions, other than such other consents, approvals, filings, declarations or registrations that, if not obtained, made or given, would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect.

Section 4.4 Ownership and Operations of Merger Sub.

Parent owns beneficially and of record all of the outstanding capital stock of Merger Sub. Merger Sub was formed solely for the purpose of engaging in the Transactions, has engaged in no other business activities and has conducted its operations only as contemplated hereby.

Section 4.5 Brokers and Other Advisors.

No broker, investment banker, financial advisor or other Person is entitled to any broker's, finder's, financial advisor's or other similar fee or commission in connection with the Transactions based upon arrangements made by or on behalf of Parent, Merger Sub or its Subsidiary, except for any such fees or commissions or expenses which will be paid by Parent.

Section 4.6 Litigation.

As of the date of this Agreement, there are no actions, suits, proceedings or claims pending or, to the knowledge of Parent or Merger Sub, threatened in writing against Parent and/or Merger Sub or any of their respective Affiliates with respect to this Agreement and the Transactions.

Section 4.7 Securities Matters.

(a) Parent has filed all forms, reports and documents required to be filed by it with the SEC pursuant to the federal securities laws and the SEC's rules and regulations thereunder (collectively, the "**SEC Documents**"), all of which, as of their respective dates, complied in all material respects with all applicable requirements of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). Except to the extent that information contained in any such SEC Document has been revised, amended, supplemented or superseded by a subsequent SEC Document, none of the SEC Documents including, without limitation, any financial statements or schedules included therein, as of their respective dates, contained any untrue statement of a material fact or omitted to state a material fact or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(b) The balance sheets and statements of operations, stockholders' equity and cash flows of Parent contained in the SEC Documents (i) comply as to form in all material respects with applicable accounting requirements and rules and regulations of the SEC with respect thereto, (ii) have been prepared in accordance with GAAP applied on a basis consistent with prior periods (and, in the case of unaudited financial information, on a basis consistent with year-end audits), (iii) are in accordance with the books and records of Parent and (iv) present fairly in all material respects the financial condition of Parent at the dates therein specified and the results of its operations and changes in financial position for the periods therein specified.

(c) The SEC Documents include all certifications and statements required, if any, by (i) Rule 13a-14 or 15d-14 under the Exchange Act, and (ii) 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act of 2002), and each of such certifications and statements contain no qualifications or exceptions to the matters certified therein other than a knowledge qualification, permitted under such provision, and have not been modified or withdrawn and neither Parent nor any of its officers has received any notice from the SEC questioning or challenging the accuracy, completeness, form or manner of filing or submission of such certifications or statements.

(d) Except as set forth in the SEC Documents, Parent maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as set forth in the SEC Documents, Parent has established disclosure controls and procedures for Parent and designed such disclosure controls and procedures to ensure that material information relating to Parent is made known to the officers by others within those entities. Parent's officers have evaluated the effectiveness of the Parent's controls and procedures as of the date prior to the filing date of the most recently filed periodic report under the Exchange Act (such date, the "**Evaluation Date**"). Since the Evaluation Date, there have been no significant changes in Parent's internal controls or, to Parent's knowledge, in other factors that could significantly affect Parent's internal controls.

(e) Parent has otherwise complied, in all material respects with the requirements applicable to it under the Securities Act of 1933, the Exchange Act, the Sarbanes-Oxley Act of 2002 and all other applicable federal and state securities laws, rules and regulations.

(f) Parent's common stock is listed on the NASDAQ Capital Market under the symbol "OPGN" and Parent is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance in all material respects with all rules and regulations of NASDAQ applicable to it and Parent's Common Stock. The issuance of Parent Common Stock under this Agreement does not contravene the rules and regulations of NASDAQ.

Section 4.8 No Additional Representations.

Except for the representations and warranties made by Parent or Merger Sub contained in this Agreement (including Article IV), Parent and Merger Sub have not made and make no other express or implied representation or warranty, either written or oral, on behalf of Parent or Merger Sub or in connection with this Agreement or the Transactions.

ARTICLE V
ADDITIONAL COVENANTS AND AGREEMENTS

Section 5.1 Liabilities of the Company.

In connection with the consummation of the transactions contemplated by this Agreement, at the Effective Time, the Company and the Parent shall have agreed upon the method of payment of the liabilities set forth on Schedule 5.1, and each of such liabilities shall have been paid by either the Company or the Parent, as mutually agreed upon.

Section 5.2 Public Announcements.

The initial press release with respect to the execution of this Agreement shall be a joint press release to be reasonably agreed upon by Parent and the Company. Thereafter, neither the Company nor Parent shall issue or cause the publication of any press release or other public announcement (to the extent not previously issued or made in accordance with this Agreement) with respect to the Merger, this Agreement or the other Transactions without the prior consent of the other party (which consent shall not be unreasonably withheld, conditioned or delayed), except (a) as such release or announcement may be required by Law or the rules or regulations of any securities exchange, as determined by the Company or Parent, as applicable, in their reasonable discretion, in which case the party required to make the release or announcement shall use its reasonable efforts to allow the other parties reasonable time to comment on such release or announcement in advance of such issuance, or (b) as otherwise contemplated by this Agreement.

Section 5.3 Access to Information; Confidentiality.

(a) Subject to applicable Laws relating to the exchange of information, the Company shall, and shall cause each of its Subsidiary to, afford to Parent and Parent's representatives and advisors, reasonable access during normal business hours and in a manner as shall not unreasonably interfere with the business or operations of the Company or any Subsidiary thereof to all of the Company's and its Subsidiary' properties, books, Contracts, commitments, records and correspondence (in each case, whether in physical or electronic form, and including all material environmentally related audits, studies, reports, analyses, and results of investigations performed with respect to the currently or previously owned, leased or operated properties of the Company or its Subsidiary), officers, employees, accountants, counsel, financial advisors and other Representatives and to all other information concerning the Company's and its Subsidiary' business, properties and personnel as Parent may reasonably request. Neither the Company nor its Subsidiary shall be required to provide access to or disclose information where such access or disclosure would jeopardize the protection of attorney-client privilege or contravene any Law (it being agreed that the parties shall use their reasonable best efforts to cause such information to be provided in a manner that would not result in such jeopardy or contravention).

(b) Parent and the Company shall hold information received from the Company pursuant to this Section 5.3 in confidence in accordance with the terms of the Confidentiality Agreement, dated May 8, 2015, between Parent and the Company (the "**Confidentiality Agreement**").

(c) No investigation, or information received, pursuant to this Section 5.3 will modify any of the representations and warranties of the parties hereto.

Section 5.4 Notification of Certain Matters.

The Company has notified Parent of (i) any notice or other communication received by the Company from any Governmental Authority in connection with the Transactions or from any Person alleging that the consent of such Person is or may be required in connection with the Transactions, if the subject matter of such communication or the failure of such party to obtain such consent could be material to the Company, the Surviving Corporation or Parent, (ii) any actions, suits, claims, investigations or proceedings commenced or, to the Knowledge of the Company, threatened in writing against, relating to or involving or otherwise affecting the Company or its Subsidiary, (iii) the discovery of any fact or circumstance that, or the occurrence or non-occurrence of any event that, would cause any representation or warranty made by the Company contained in this Agreement to be untrue in any material respect, and (iv) any material failure of the Company to comply with or satisfy any covenant or agreement contemplated pursuant to this Agreement; provided, however, that the delivery of any notice pursuant to this Section 5.4 shall not (x) cure any breach of, or non-compliance with, any other provision of this Agreement or (y) limit the remedies available to the party receiving such notice. Notwithstanding the foregoing, the failure to comply with this Section 5.4 will not constitute the failure of any condition set forth in Article VI to be satisfied unless the underlying event would independently result in the failure of any such condition to be so satisfied.

Section 5.5 Securityholder Litigation.

Following the Effective Date, the Stockholders and the former officers and directors of the Company shall give Parent the opportunity to participate in (but not control) the defense or settlement of any securityholder litigation against the Company and/or its officers or directors relating to the Transactions, subject to a customary joint defense agreement, and no such settlement shall be agreed to without Parent's prior written consent, not to be unreasonably withheld, conditioned or delayed.

Section 5.6 Fees and Expenses.

All fees and expenses incurred in connection with this Agreement, the Merger and the Transactions shall be paid by the party incurring such fees or expenses, whether or not the Merger is consummated.

Section 5.7 Certain Employee-Related Matters.

(a) Following the Effective Time, the Surviving Corporation shall, and Parent shall cause the Surviving Corporation to, abide by, and perform its obligations under the terms of the management consulting agreements and the offer letter set forth on Section 5.7(a) of the Company Disclosure Schedule; provided that nothing contained in this Section 5.7, express or implied, is intended to, or does, require the Surviving Corporation or Parent to employ or retain any employee or consultant of the Company or its Subsidiary for any length of time following the Closing.

(b) (i) For purposes of determining whether a Continuing Employee has met the eligibility service requirements of a Parent Benefit Plan and (ii) upon each applicable Continuing Employee's commencement of participation in an applicable Parent Benefit Plan, for purposes of vesting and for purposes of benefit accrual under Parent's vacation and severance arrangements as in effect on the date hereof, Parent shall credit each Continuing Employee with his or her years of service (or applicable portion thereof, as the case may be) with the Company, its Subsidiary or any ERISA Affiliates, and any predecessor entities, to the same extent as such Continuing Employee was entitled to credit for such service under any Company Plan prior to the Continuing Employee's commencement of participation in the Parent Benefit Plan, except that Continuing Employees shall receive no such credit (1) to the extent that such credit would result in a duplication of benefits, or (2) under any newly-established Parent Benefit Plan for which similarly-situated employees of Parent do not receive credited service.

(c) For purposes of this Agreement, the term "**Continuing Employee**" shall mean those individuals employed by the Company or its Subsidiary as of the Closing Date who continue their employment with the Company, Parent or its Subsidiary that are ERISA Affiliates on and after the Closing Date, and the term "**Parent Benefit Plans**" shall mean the employee benefit plans of Parent, the Surviving Corporation or an Affiliate of either such entity, other than a defined benefit pension benefit plan. For purposes of this Agreement, the term "**ERISA Affiliate**" shall include any organization that is or has ever been treated as a single employer with the Company or any Subsidiary under Section 414(b), (c), (m) or (o) of the Code or Section 4001(b) of ERISA.

(d) To the extent Parent terminates the employment of any employee of the Surviving Corporation as of or following the Effective Time, including without limitation any Continuing Employee, the Surviving Corporation shall, and Parent shall cause the Surviving Corporation to, assume all obligations to comply with all Laws related thereto, including without limitation, WARN.

Section 5.8 Resignations and Related Matters.

The Company has delivered to Parent at the Closing evidence reasonably satisfactory to Parent of (i) the resignations of all directors of the Company and of the resignations from office with the Company of those officers of the Company specified by Parent reasonably in advance of the Closing and, in each case, effective at the Effective Time, and (ii) the taking of all such actions (including the adoption of any necessary resolutions by the Company Board of Directors) as may be necessary to effect as of the Effective Time the actions (including the officer and director appointments) set forth in Sections 1.5 and 1.6. The Company and Parent agree that any such resignation as an officer or director does not terminate any employment relationship of such individual with the Company, and shall be without prejudice to any rights that such director or officer may have under any existing employment, severance or other similar agreement with the Company or under applicable Law.

Section 5.9 Private Placement Transaction.

The issuance of the Aggregate Merger Consideration to the stockholders of the Company shall be conducted as a private placement of securities under Regulation D, Rule 506 promulgated under the Securities Act. The stockholders of the Company will cooperate with the reasonable requests for information regarding their accredited investor status and other investor-related determinations conducted by Parent.

Section 5.10 Registration Rights Agreement.

Parent shall enter into a Registration Rights Agreement, in the form of **Exhibit C** to this Agreement (the "**Registration Rights Agreement**") with the stockholders of the Company as of the Effective Time.

Section 5.11 Tax Matters.

(a) Responsibility for Payment of Taxes. The Stockholder Parties shall be responsible for all Taxes of the Company and its Subsidiary for Tax periods, or portions thereof, ending on or before the Closing Date ("**Pre-Closing Taxes**"). With respect to periods that end on or before the Closing Date, all Taxes shall be Pre-Closing Taxes. With respect to periods that begin before and end after the Closing Date ("**Straddle Periods**"), Taxes relating to the pre-closing portion of the Straddle Period shall be Pre-Closing Taxes. For this purpose, Taxes shall be allocated between the pre-closing and post-closing portion of the Straddle Period (i) using a daily pro-ration method in the case of Taxes imposed on a periodic basis, and (ii) using a "closing of the books" method in the case of all other Taxes.

(b) Filing of Tax Returns. Parent shall prepare or cause to be prepared, and file or cause to be filed, all Tax Returns for the Company and its Subsidiary for periods ending on the Closing Date and all Straddle Periods, and that are filed after the Closing Date. Parent shall provide the Representatives with a copy of such completed Tax Returns and a statement certifying the amounts of Tax shown on such Tax Returns that are Pre-Closing Taxes. Parent shall consider in good faith the comments of the Representatives, and shall make such changes to the Tax Returns and the statement certifying the amount of Pre-Closing Taxes as are reasonably requested by the Representatives. Upon receipt by the Representatives of the finalized Tax Returns and statement from Parent certifying the amount of Pre-Closing Taxes, Stockholder Parties shall promptly pay to Parent the amount of the Pre-Closing Taxes shown on such statement.

(c) Tax Contests. Notwithstanding anything to the contrary in Section 7.3, if the Parent receives any written claim or notification of a Tax audit made by a taxing authority (a "**Tax Contest**") which could result in any indemnification payment to Parent, Parent shall promptly notify the Representatives of such Tax Contest; provided, however, that the failure to give such notice or to keep the Representative so informed shall not affect the indemnification provided hereunder except to the extent the Indemnifying Party has been materially prejudiced as a result of such failure. Representatives shall, solely at their own cost and expense, have the right to participate in proceedings relating to the Tax Contest. Parent shall not settle such Tax Contest without the prior written consent of Representatives, which consent shall not be unreasonably withheld, conditioned or delayed.

(d) Tax Cooperation. Representatives and Parent shall provide each other with such cooperation and information as they reasonably may request of the other in filing any Tax Return, claim for refund, or participating in or conducting any audit or other proceeding in respect of Taxes. Such cooperation and information shall include providing copies of relevant Tax Returns or portions thereof, together with related work papers and documents relating to rulings or other determinations by taxing authorities. Representatives and Parent shall make themselves (and their respective employees) reasonably available on a mutually convenient basis to provide explanations of any documents or information provided under this Section 5.11(d).

Section 5.12 Indemnification and Insurance.

(a) Following the Effective Time, Parent shall cause the Surviving Corporation to maintain in effect for not less than six years after the Closing Date, the Company's current directors' and officers' liability insurance policies (or policies of at least the same coverage containing terms and conditions no less advantageous to the current and all former directors and officers of the Company) with respect to acts or omissions occurring (or alleged to occur) prior to or at the Closing Date with respect to each current and former director and officer of the Company; provided, however, that Parent and the Surviving Corporation shall not be required to maintain or obtain policies providing such coverage except to the extent such coverage can be provided at an annual cost of no greater than 250% of the most recent annual premium paid by the Company prior to the date hereof (the "**Cap**"); and provided, further, that if equivalent coverage cannot be obtained, or can be obtained only by paying an annual premium in excess of the Cap, the Surviving Corporation shall only be required to obtain as much coverage as can be obtained by paying an annual premium equal to the Cap. In lieu of the foregoing, following consultation with Parent, the Company may purchase, prior to the Effective Time, a six-year "tail" prepaid directors' and officers' liability insurance policy in respect of acts or omissions occurring prior to the Effective Time, at a cost per year covered for such tail policy not to exceed the Cap, covering each current and former director and officer of the Company. In the event that the Company purchases such a "tail" policy prior to the Effective Time, the obligations of Parent and the Surviving Corporation under this Section 5.12(a) shall be deemed satisfied, provided that the Surviving Corporation shall (and Parent shall cause the Surviving Corporation to) use reasonable best efforts to maintain such "tail" policy in full force and effect and continue to honor the Surviving Corporation's obligations thereunder.

(b) Following the Effective Time, Parent shall cause the Surviving Corporation for not less than six years after the Closing Date to keep in effect in the Company Charter Documents all provisions at least as favorable as the provisions in the Company Charter Documents on the date hereof that provide for exculpation of director or officer liability and indemnification (and advancement of expenses related thereto) of the past and present officers and directors of the Company, except as limited by applicable Law, and such provisions shall not be amended during such six (6) year period except as either required by applicable Law or to make changes permitted by applicable Law that would enhance the rights of past or present officers and directors to exculpation, indemnification or advancement of expenses.

(c) The Persons to whom this Section 5.12 applies shall be third party beneficiaries of this Section 5.12. The provisions of this Section 5.12 are intended to be for the benefit of each such Person and his or her heirs, successors and representatives. Notwithstanding anything contained in this Section 5.12 to the contrary, this Section 5.12 shall survive the consummation of the Merger and shall be binding on all successors and assigns of the Parent and the Surviving Corporation.

ARTICLE VI
CONDITIONS PRECEDENT

Section 6.1 Conditions to Each Party's Obligation.

The obligations of Parent, Merger Sub and the Company to effect the Merger shall be subject to the satisfaction or waiver in writing, on or prior to the Closing Date, of the following conditions:

(a) Company Stockholder Approval. The Company Stockholder Approval shall have been obtained in accordance with applicable Law and the Company Charter Documents; and

(b) No Injunctions or Restraints. No Law, order (whether executive or otherwise), stay, decree, injunction, judgment or ruling (whether temporary, preliminary or permanent) enacted, promulgated, issued, entered, amended or enforced by any Governmental Authority shall be in effect enjoining, restraining, preventing or prohibiting consummation of the Transactions or making the consummation of the Transactions illegal.

Section 6.2 Conditions to Obligations of Parent and Merger Sub. The obligations of Parent and Merger Sub to effect the Merger are further subject to the satisfaction or waiver in writing, on or prior to the Closing Date, of the following conditions:

(a) Representations and Warranties.

(i) Each of the representations and warranties of the Company set forth in Sections 3.1, 3.2, 3.3, 3.5(b), 3.5(c) (as to clause (iii) only), 3.8(b) and 3.10(h) of this Agreement (A) that is qualified by "materiality," "Company Material Adverse Effect" or a similar qualifier (each a "**Materiality Qualifier**") shall be true and correct in all respects, and (B) that is not qualified by a Materiality Qualifier shall be true and correct in all material respects, in each case, on the date of this Agreement and on and as of the Closing Date as though made on and as of the Closing Date (except for representations and warranties made as of a specified date, the accuracy of which will be determined only as of the specified date); and

(ii) Each of the representations and warranties of the Company (other than those referred to in Section 6.2(a)(i)) shall be true and correct in all respects, in each case, on the date of this Agreement and on and as of the Closing Date as though made on and as of the Closing Date (except for representations and warranties made as of a specified date, the accuracy of which will be determined only as of the specified date), except to the extent breaches thereof, individually or in the aggregate, have not had, and would not reasonably be expected to have, a Company Material Adverse Effect;

(b) Performance of Obligations of the Company. The Company shall have performed, in all material respects, all obligations and complied with, in all material respects, all agreements and covenants to be performed or complied with by it under this Agreement on or prior to the Effective Time;

(c) Officers' Certificate. The Company shall have delivered to Parent a certificate signed on behalf of the Company by the Company's chief executive officer and the chief financial officer certifying the satisfaction of the conditions in Section 6.2(a) and Section 6.2(b);

(d) Company Material Adverse Effect. Since the date hereof, there shall not have been or occurred any event, circumstance, change or occurrence that, individually or in the aggregate, has had or would reasonably be expected to have a Company Material Adverse Effect;

(e) Stockholder Approval. Stockholders holding an aggregate of eighty-five percent (85%) of the issued and outstanding Shares entitled to vote on the Merger shall have: (i) approved the Merger, the Certificate of Merger and the transactions contemplated by this Agreement; and (ii) approved, the extent necessary, the actions taken with respect to all outstanding Stock Options and Warrants;

(f) Stockholder Representations. Each stockholder of the Company who receives any Merger Consideration pursuant to this Agreement shall provide Parent with an accredited investor questionnaire and additional representations and warranties as reasonably requested by Parent to ensure the accredited investor status of such stockholder, and all such representations and warranties shall be true and correct as of the Closing Date.

(g) Investment in Parent. The separate investment by a Company stockholder in Parent shall be made immediately following the Closing.

Section 6.3 Conditions to Obligation of the Company. The obligation of the Company to effect the Merger is further subject to the satisfaction waiver in writing, on or prior to the Closing Date, of the following conditions:

(a) Representations and Warranties. Each of the representations and warranties of Parent and Merger Sub contained in this Agreement that is qualified by "materiality," "Parent Material Adverse Effect" or a similar qualifier shall be true and correct in all respects, and each of such representations and warranties that is not so qualified shall be true and correct in all material respects, in each case, on the date of this Agreement and on and as of the Closing Date as though made on and as of the Closing Date (except for representations and warranties made as of a specified date, the accuracy of which will be determined only as of the specified date);

(b) Performance of Obligations of Parent and Merger Sub. Parent and Merger Sub shall have performed, in all material respects, all obligations and complied with, in all material respects, all agreements and covenants to be performed or complied with by them under this Agreement at or prior to the Effective Time;

(c) Officers' Certificate. Parent shall have delivered to Company a certificate signed on behalf of Parent by an executive officer of the Parent certifying the satisfaction of the conditions in Section 6.3(a) and Section 6.3(b); and

(d) Registration Rights. Parent shall have entered into the Registration Rights Agreement with the stockholders of the Company receiving Merger Consideration.

ARTICLE VII
SURVIVAL AND INDEMNIFICATION

Section 7.1 Survival.

(a) Except as set forth in Sections 7.1(b) and 7.1(c), the representations and warranties contained in this Agreement shall survive the Closing hereunder and continue in full force and effect until the date that is eighteen (18) months after the Closing Date and shall thereupon expire, together with the associated rights of indemnification, except to the extent that a claim for breach thereof has theretofore been asserted in writing (in which event the representation or warranty and the associated rights of indemnification shall survive with respect to such claim until such claim has been resolved). Each of the covenants and agreements contained herein shall survive the Closing and continue in full force and effect in accordance with their terms.

(b) The representations and warranties contained in the Fundamental Representations shall survive the Closing hereunder and continue in full force and effect, together with the associated right of indemnification, until sixty (60) days after the expiration of any applicable statute of limitations and shall thereupon expire, together with the associated right of indemnification, except to the extent that a claim for breach thereof has theretofore been asserted in writing (in which event the representation or warranty and the associated rights of indemnification shall survive with respect to such claim until such claim has been resolved).

(c) The representations and warranties contained in Sections 3.8 (Compliance with Laws; Regulatory Matters), 3.9 (Warranties and Company Products) and Section 3.15 (Intellectual Property) shall survive the Closing hereunder and continue in full force and effect, together with the associated right of indemnification, until December 31, 2016 and shall thereupon expire, together with the associated right of indemnification, except to the extent that a claim for breach thereof has theretofore been asserted in writing (in which event the representation or warranty and the associated rights of indemnification shall survive with respect to such claim until such claim has been resolved).

Section 7.2 Indemnification.

(a) From and after the Closing and in accordance with the procedures set forth in this Article VII, each Stockholder Party shall severally and not jointly indemnify and hold harmless the Parent, the Surviving Corporation and their Affiliates and each of their respective officers, directors, employees and agents (each, a "**Parent Indemnified Party**") from and against any and all Losses, arising out of, resulting from or relating to (i) any breach of any representation or warranty by the Company contained in this Agreement or any Ancillary Document, (ii) any breach of any other covenant or agreement of the Company contained in this Agreement or any Ancillary Document, (iii) any Pre-Closing Taxes, and (iv) payment of Merger Consideration to any stockholder of the Company at the Effective Time who or that actually receives no portion of the Aggregate Merger Consideration under the liquidation preferences in the Restated Certificate, including the Non-Consenting Shares (including, for avoidance of doubt, any excess of the Appraised Value of each Non-Consenting Share over the applicable Merger Consideration that would have been applicable to the Company Shares comprising such Non-Consenting Shares).

(b) The indemnification provided in this Section 7.2 shall not apply to any act taken by Parent or the Surviving Corporation after the Effective Time that is not specifically contemplated by this Agreement.

(c) Any indemnification payment made pursuant to this Agreement shall be treated as an adjustment to the Aggregate Merger Consideration for Tax purposes, unless otherwise required by applicable Law.

Section 7.3 Procedure.

(a) Any Parent Indemnified Party seeking indemnification under this Article VII (the "**Indemnified Party**") with respect to any matter shall promptly notify the Representative (any such notice, a "**Notice of Claim**") that indemnification is being sought from the Stockholder Parties (the "**Indemnifying Party**") in writing; provided, however, that no delay on the part of the Indemnified Party in notifying the Indemnifying Party shall relieve the Indemnifying Party from any obligation hereunder except to the extent the Indemnifying Party is materially prejudiced thereby. The Notice of Claim shall state the nature and basis of such claim or event, the amount thereof to the extent known and the basis of the Indemnified Party's belief that it is or may be entitled to indemnification with respect thereto, including identifying the representation, warranty, covenant or agreement which the Indemnified Party believes has been breached.

If within forty-five (45) days from the date of delivery of a Notice of Claim by an Indemnified Party to the Representative, the Representative shall not have notified the Parent that there is or may be a dispute relating in any way to such Notice of Claim or the matters set forth therein, or both, then the Parent shall deduct the amount set forth in such Notice of Claim from (but only to the extent of) the Available Holdback Amount after the expiration of such 20-day period and shall give notice of such deduction to the Representative.

If within twenty (20) days from the date of delivery of a Notice of Claim by an Indemnified Party to the Representative, the Representative shall have notified the Parent that there is or may be a dispute relating in any way to such Notice of Claim or the matters set forth therein, or both (a "**Notice of Disputed Claim**"), then the Parent shall deduct from (but only to the extent of) the Available Holdback Amount only to the extent of the undisputed amount, pending the resolution of such dispute in accordance with the provisions of this Section 7.3. The amount in dispute as set forth in such Notice of Disputed Claim shall, after such Notice of Disputed Claim has been given, remain in and part of the Available Holdback Amount until such time as either (x) the Representative and the Parent such dispute in writing, or (y) a copy of an order or determination from a court of competent jurisdiction setting forth the resolution of such dispute. Upon such mutual agreement or receipt of such order or determination, the Parent shall promptly deduct from (but only to the extent of) the Available Holdback Amount the amount set forth therein and shall give prompt notice of such deduction to the Representative.

(b) If a claim for indemnification involves Litigation, the Indemnifying Party shall be entitled (but not obligated) to defend the Indemnified Party against such claim with counsel selected by the Indemnified Party and reasonably satisfactory to the Indemnifying Party, and the Indemnified Party may participate in the defense of such claim at its own expense. Neither the Indemnifying Party nor the Indemnified Party shall consent to the entry of any judgment or enter into any settlement with respect to such claim without the prior written consent of the other (which consent shall not be unreasonably withheld). Notwithstanding the foregoing, the Indemnified Party shall have the right to assume control of the defense of any such claim and the Indemnifying Party shall pay the reasonable fees and expenses of the Indemnified Party's counsel if (i) the Indemnified Party and Indemnifying Party have significantly divergent interests, or (ii) the named parties to any such claim include both the Indemnified Party and Indemnifying Party and the Indemnified Party has defenses available to it that are unavailable to the Indemnifying Party, or (iii) such claim seeks injunctive relief, specific performance, or other equitable relief from, or seeks to impose any criminal penalty, fine or other sanction on, the Indemnified Party. In no case shall the Indemnifying Party be liable for the fees and disbursements of more than one counsel (in addition to local counsel) in a single lawsuit for all Indemnified Parties as a group in connection with any claim or series of related claims.

Section 7.4 Claims Against the Holdback Amount and Release of Holdback Amount.

(a) To the extent that a Parent Indemnified Party is entitled to indemnification pursuant to this Article VII, each Stockholder Party shall determine whether its pro rata portion of the indemnification claim shall be paid in cash or in Merger Shares. The Stockholder Parties shall communicate such determinations to the Representatives. To the extent that the Stockholder Parties determine to tender different types of consideration to cover any one indemnified claim, the Representatives agree to discuss the consideration to be paid with Parent, and reach a final decision reasonably acceptable to Parent and the Stockholder Parties prior to tendering of any such consideration.

(b) To the extent that a Parent Indemnified Party is entitled to indemnification pursuant to this Article VII, such indemnification shall come from the Available Holdback Amount, which is the sole and exclusive remedy of the Parent Indemnified Parties for all indemnified Losses, Claims and other actions, provided, however that nothing in the foregoing limitation applies to any Person who commits fraud; such Person shall be liable for the full amount of such fraud. The obligation of the Stockholder Parties for indemnification for fraud is limited to the Aggregate Merger Consideration.

(c) On the date that is twelve (12) months after the Closing Date (the "**First Holdback Release Date**"), if there are no pending or closed claims for indemnification with an actual or estimated value that exceeds $300,000.00 for which any Parent Indemnified Party is seeking or has received indemnification, then $300,000.00 of the Available Holdback Amount shall be released to the Paying Agent for distribution to the holders of Merger Shares entitled to receive Merger Consideration pursuant to Section 2.1(c). On the date that is eighteen (18) months after the Closing Date (the "**Final Holdback Release Date**"), the Available Holdback Amount, if any, less the sum of any amounts with respect to any unresolved Notice of Claim for which any Parent Indemnified Party is seeking indemnification, shall be released to the Paying Agent for distribution to the holders of Merger Shares entitled to receive Merger Consideration pursuant to Section 2.1(c).

Section 7.5 Matters Relating to Indemnification.

(a) Any materiality, Material Adverse Effect or other similar qualification contained in or otherwise applicable to a representation or warranty made by the Company or a Stockholder Party in this Agreement or any Ancillary Document shall be disregarded for purposes of determining the amount of any Losses suffered by a Parent Indemnified Party in connection therewith.

(b) No Stockholder Party shall be liable to a Parent Indemnified Party in respect of any indemnification hereunder pursuant to Section 7.2(a)(i) or 7.2(a)(ii) (other than with respect to any claim for indemnification arising out of, resulting from or relating to any inaccuracy in or breach of (i) any Fundamental Representation, (ii) any representation or warranty of the Company made in this Agreement or any Ancillary Document arising out of, resulting from or relating to any fraud by the Company or any Person acting on the behalf of the Company or (iii) any representation or warranty of any Stockholder Party made in any Ancillary Document arising out of, resulting from or relating to any fraud of such Stockholder Party or any Person acting on behalf of such Stockholder Party (collectively, the "**Basket Exceptions**")), until the aggregate amount of all Losses in respect of indemnification pursuant to Section 7.2(a)(i) and 7.2(a)(ii) (other than with respect to Basket Exceptions) exceeds $50,000, in which event the Parent Indemnified Parties shall be entitled to indemnification for all such Losses from the first dollar.

(c) From and after the Effective Time, the Parent's right to reimbursement from the Holdback Amount (on the Parent's own behalf and, as applicable, on behalf of the Parent Indemnified Parties), shall be the sole and exclusive remedies of the Parent and the Parent Indemnified Parties for any matter arising under or related to this Agreement, any Ancillary Document or the transactions contemplated hereby, other than any claims arising out of, resulting from or relating to (i) any inaccuracy in or breach of any Fundamental Representation, (ii) the Non-Consenting Shares (including, for avoidance of doubt, any excess of the Appraised Value of each Non-Consenting Share over the applicable Merger Consideration that would have been applicable to the Company securities comprising such Non-Consenting Shares), or (iii) any fraud by the Company or any Stockholder Party or any Person acting on behalf of the Company or any Stockholder Party; provided, however, that nothing in this Section 7.5(c) or elsewhere in this Agreement shall affect the parties' rights to specific performance or other equitable remedies with respect to the covenants referred to in this Agreement or to be performed after the Closing or any rights arising out of claims the Parent or the Surviving Corporation may have under the Letters of Transmittal; provided, further, that, with respect to Losses arising out of, resulting from, or relating to any inaccuracy in or breach of a Fundamental Representation, liability for Losses resulting from Non-Consenting Shares or resulting from or related to fraud by the Company or any Stockholder Party, in no event shall any Stockholder Party be liable to the Parent Indemnified Parties for such Losses in excess of the portion of the Aggregate Merger Consideration actually received by such Stockholder Party as of such time (without limiting the Parent's right to reimbursement from the Holdback Amount, in each case on the Parent's own behalf and, as applicable, on behalf of the Parent Indemnified Parties).

(d) Without the prior written consent of the Representative, which consent shall not be unreasonably withheld or delayed, no Tax Return relating to a Pre-Closing Tax Period for which an Indemnitee may seek indemnity hereunder may be amended.

(e) The amount of any Losses for which indemnification is provided under this Article VII shall be computed net of any Tax benefit actually realized by the Indemnified Party arising from the incurrence or payment of any such Losses. In computing the amount of any such Tax benefit, the Indemnified Party shall be deemed to recognize all other items of income, gain, loss, deduction or credit before recognizing any item arising from the receipt of any indemnity payment hereunder or the incurrence or payment of any indemnified amount.

(f) At the time any of the Holdback Amount is retained by Parent in satisfaction of an indemnification obligation under this Article VII, the number of shares of Parent common stock retained by Parent shall be determined based upon the value of the shares which will be the greater of: (i) the value of such shares at the Effective Time; or (ii) the average closing trading price of the Parent's common stock for a period of thirty (30) trading days, which such period ended five business days prior to the date of the Holdback Amount being paid; unless the parties agree to a different valuation method at the time. Any insurance proceeds paid to Parent in satisfaction of an indemnification claim shall offset any Holdback Amount retained.

(g) Nothing in this Article VII or in this Agreement modifies, replaces, amends or diminishes any indemnification rights granted to the Company or indemnification agreements entered into for the benefit of the Company by any of the Stockholder Party Parties as of and after the Effective Time, and such rights and benefits, including those set forth on Schedule 7.5(g), will inure to the benefit of the Surviving Corporation in accordance with applicable Law,.

Section 7.6 Representatives.

By the execution of this Agreement, each Stockholder Party hereby irrevocably constitutes and appoints each Representative as the true and lawful agent and attorney-in-fact of such Stockholder Party with full powers of substitution (and, if substituted, the Representatives will promptly notify Parent of such substitution) to act in the name, place and stead of such Stockholder Party with respect to this Agreement or the Ancillary Documents to which the Representatives are parties, as the same may be from time to time amended, and with respect to the indemnification hereunder and the other transactions contemplated by this Article VII, and to do or refrain from doing all such acts and things, and to execute all such documents, as the Representatives shall deem necessary or appropriate in connection with this Agreement, the Ancillary Documents to which the Representatives are a party or any of the transactions contemplated hereby or thereby.

The Representatives are hereby authorized to take all actions on behalf of the Stockholder Parties in connection with any actions taken or to be taken under this Article VII (including accepting service of process upon such Stockholder Parties and accepting or compromising any claim for indemnification). The Stockholder Representatives will take only such actions, or omit to take any action, which may be taken by the Stockholder Representatives, by mutual agreement. All decisions and actions of the Representatives shall be final, binding and conclusive on the Stockholder Parties and may be relied upon by Parent and its Affiliates as the decisions and actions of the Stockholder Parties. The Representatives shall not be liable to any of the Stockholder Parties for any act done or omitted by the Representatives in good faith pursuant to this Agreement or any of the Ancillary Documents to which the Representatives are a party or any mistake of fact or Law unless caused by its own willful misconduct in the performance of such Representative's duties under this Agreement.

Each Stockholder Party hereby irrevocably relinquishes such Stockholder Party's right to act independently and other than through the Representatives. The Representatives each hereby acknowledges and accepts the foregoing authorization and appointment and agrees to serve as Representative of the Stockholder Parties in accordance with the terms of this Article VII.

Notices or communications to or from the Representative shall constitute notice to or from each of Stockholder Parties. Each Representative organized as an entity shall designate in writing a single natural person authorized to act on behalf of the entity in its capacity as Representative, such writing to be delivered to Parent pursuant to the notice provisions of this Agreement.

Each Representative may resign at any time upon not less than thirty (30) days' notice to Parent and the Stockholder Parties. A replacement Representative shall be selected by the Stockholder Parties from among the Stockholder Parties; provided, however, that if one Representative resigns but the other is willing to continue service, no replacement Representative for the resigning Representative need be named.

ARTICLE VIII
MISCELLANEOUS

Section 8.1 Amendment or Supplement.

At any time prior to the Effective Time, this Agreement may be amended or supplemented in any and all respects, whether before or after receipt of the Company Stockholder Approval, by written agreement of the parties hereto, by action taken by their respective Boards of Directors; provided, however, that following the adoption of this Agreement by the stockholders of the Company, there shall be no amendment or change to the provisions hereof which by Law would require further approval by the stockholders of the Company without such approval.

Section 8.2 Extension of Time, Waiver.

At any time prior to the Effective Time, any party may, subject to applicable Law, (a) waive any inaccuracies in the representations and warranties of any other party hereto, (b) extend the time for the performance of any of the obligations or acts of any other party hereto or (c) waive compliance by the other party with any of the agreements contained herein or, except as otherwise provided herein, waive any of such party's conditions. Notwithstanding the foregoing, no failure or delay by the Company, Parent or Merger Sub in exercising any right hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right hereunder. No action taken pursuant to this Agreement, including any investigation by or on behalf of any party hereto, constitutes a waiver by the party taking such action of compliance with any provision of this Agreement. Any agreement on the part of a party hereto to any such extension or waiver shall be valid only if set forth in an instrument in writing signed on behalf of such party. The waiver by any party hereto of any provision of this Agreement is effective only in the instance and only for the purpose that it is given and does not operate and is not to be construed as a further or continuing waiver of such provision or as a waiver of any other provision.

Section 8.3 Assignment.

Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of Law or otherwise, by any of the parties without the prior written consent of the other parties, except that Merger Sub may assign, in its sole discretion, any of or all its rights, interests and obligations under this Agreement to Parent or to any wholly owned Subsidiary of Parent, but no such assignment shall relieve Parent or Merger Sub of any of its obligations hereunder. Subject to the preceding sentence, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties hereto and their respective successors and permitted assigns. Any purported assignment not permitted under this Section shall be null and void.

Section 8.4 Counterparts.

This Agreement may be executed and delivered (including by facsimile or other means of electronic transmission, such as by electronic mail in "pdf" form) in any number of counterparts (each of which shall be deemed to be an original but all of which taken together shall constitute one and the same agreement) and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties. Delivery of an executed counterpart signature page is as effective as executing and delivering this Agreement in the presence of the other parties to this Agreement.

Section 8.5 Entire Agreement; No Third-Party Beneficiaries.

Neither this Agreement nor any of the terms or provisions hereof are binding upon or enforceable against any party hereto unless and until the same is executed by all of the parties hereto. This Agreement, the Company Disclosure Schedule and the Confidentiality Agreement (a) constitute the entire agreement, and supersede all other prior agreements and understandings, both written and oral, among the parties, or any of them, with respect to the subject matter hereof and thereof and (b) are not intended to and shall not confer upon any Person other than the parties hereto any rights or remedies hereunder.

Section 8.6 Governing Law; Jurisdiction.

(a) The Laws of the State of Delaware (without giving effect to its conflicts of law principles) govern this Agreement and all matters arising out of or relating to this Agreement and any of the Transactions, including its negotiation, execution, validity, interpretation, construction, performance and enforcement.

(b) The parties hereto hereby irrevocably submit to the exclusive jurisdiction of the Chancery Court of the State of Delaware (or if such court lacks jurisdiction any federal court sitting in the State of Delaware) over any action or proceeding arising out of or relating to this Agreement or any of the Transactions and each party hereto hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such courts. The parties hereto hereby irrevocably waive any objection which they may now or hereafter have to the laying of venue of any action or proceeding brought in such court or any claim that such action or proceeding brought in such court has been brought in an inconvenient forum. Each of the parties hereto agrees that a judgment in such action or proceeding may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by Law. Each of the parties hereto hereby irrevocably consents to process being served by any party to this Agreement in any action or proceeding by delivery of a copy thereof in accordance with the provisions of Section 8.9.

Section 8.7 WAIVER OF JURY TRIAL.

EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 8.8 Specific Enforcement.

The parties agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement in the Chancery Court of the State of Delaware (or if such court lacks jurisdiction any federal court sitting in the State of Delaware), without bond or other security being required, this being in addition to any other remedy to which they are entitled at law or in equity.

Section 8.9 Notices.

All notices, requests and other communications to any party hereunder shall be in writing and shall be deemed given if delivered personally, by facsimile (which is confirmed by an acknowledgement or transmission report generated by the machine from which the facsimile was sent indicating that the facsimile was sent in its entirety to the addressee's facsimile number), or sent by overnight courier (providing proof of delivery) to the parties at the following addresses:

If to Parent or Merger Sub, to:

OpGen, Inc.
708 Quince Orchard Road
Gaithersburg, MD 20878
Attention: Chief Financial Officer
Facsimile: (301) 869-9684

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

Ballard Spahr LLP
1735 Market Street, 51st Floor
Philadelphia, PA 19103
Attention: Mary J Mullany
Facsimile: (215) 864-8999

If to the Company, to:

AdvanDx, Inc.
400 Trade Center, Suite 6990
Waltham, MA 01801
Attention: President
Facsimile: (781) 376-0111

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

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111
Attention: Jonathan L. Kravetz
Facsimile: (617) 542-2241

or such other address or facsimile number as such party may hereafter specify by like notice to the other parties hereto. All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5 p.m. in the place of receipt and such day is a business day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed not to have been received until the next succeeding business day in the place of receipt. In the event that an addressee of a notice or communication rejects or otherwise refuses to accept a notice or other communication delivered or sent in accordance with this Section 8.9, or if the notice or other communication cannot be delivered because of a change in address for which no notice was given, then such notice or other communication is deemed to have been received upon such rejection, refusal or inability to deliver.

Section 8.10 Severability.

If any term or other provision of this Agreement is determined by a court of competent jurisdiction to be invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms, provisions and conditions of this Agreement shall nevertheless remain in full force and effect. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible to the fullest extent permitted by applicable Law in an acceptable manner to the end that the Transactions are fulfilled to the extent possible.

Section 8.11 Definitions.

As used in this Agreement, the following terms have the meanings ascribed thereto below:

"**Affiliate**" means, as to any Person, any other Person that, directly or indirectly, controls, or is controlled by, or is under common control with, such Person. For this purpose, "**control**" (including, with its correlative meanings, "**controlled by**" and "**under common control with**") means the possession, directly or indirectly, of the power to direct or cause the direction of management or policies of a Person, whether through the ownership of securities or partnership or other ownership interests, by contract or otherwise.

"**Aggregate Merger Consideration**" means $3,000,003.60, payable in shares of Parent's Common Stock at a price of $4.40 per share issuable to the stockholders of the Company immediately prior to the Effective Time as applicable Merger Consideration based on their respective liquidation preferences in accordance with Schedule 2.1(c).

"**Ancillary Document**" means each other instrument executed or to be executed in connection with this Agreement.

"**Appraised Value**" means the per-share value of any Dissenting Shares determined pursuant to a judicial appraisal process.

"**Available Holdback Amount**" means the Holdback Amount less (i) any Holdback Release Payment and (ii) any deductions from the Holdback Amount in accordance with this Agreement, as of any determination date hereunder.

beneficial ownership" (and its correlative terms) have the meanings assigned to such terms in Rule 13d-3 under the Exchange Act.

"**business day**" has the meaning assigned to such term in Rule 14d-1(g)(3) under the Exchange Act.

"**Company Material Adverse Effect**" means any event, circumstance, change, occurrence or effect that (i) is materially adverse to, or has a material adverse effect on, the business, properties, financial condition or results of operations of the Company and its Subsidiary taken as a whole; or (ii) prevents or materially adversely affects the Company's ability to perform its obligations under this Agreement or to consummate the Transactions, excluding any such event, circumstance, change, occurrence or effect arising out of, resulting from or attributable to: (A) acts of war or major armed hostilities, sabotage, or terrorism or any escalation or worsening of any acts of war, major armed hostilities, sabotage or terrorism; (B) compliance with the terms of, or the taking of any action required by, this Agreement; (C) changes in Laws (other than changes that have a disproportionate adverse impact on the Company and its Subsidiary taken as a whole compared to other businesses competing in the industries in which the Company does business) or GAAP; (D) the announcement of the Transactions or the taking of any action pursuant to this Agreement or otherwise with the written consent of Parent, including the impact thereof on the relationships of the Company with customers, suppliers, distributors, consultants, employees or independent contractors or any other Person with whom the Company has any relationship; (E) changes generally affecting the industries in which the Company and its Subsidiary operate (other than changes that have a disproportionate adverse impact on the Company and its Subsidiary taken as a whole compared to other businesses competing in the industries in which the Company does business); (F) any change generally affecting the economy, financial or securities markets or political or economic conditions, or regulatory conditions (other than changes in regulatory conditions that have a disproportionate adverse impact on the Company and its Subsidiary taken as a whole compared to other businesses competing in the industries in which the Company does business) in any geographic region in which the Company conducts business (it being understood that the circumstances underlying such change may be deemed to constitute, or may be taken into account in determining whether there has been, a Company Material Adverse Effect) and (G) any failure, in and of itself, by the Company to meet any internal forecasts, or predictions of revenue, earnings or other financial measure (it being understood that the circumstances underlying such failure may be deemed to constitute, or may be taken into account in determining whether there has been, a Company Material Adverse Effect).

"**Company Board of Directors**" means the Company's Board of Directors.

"**Company Facilities**" means any properties or facilities used, leased or occupied by the Company or its Subsidiary.

"**Company Preferred Stock**" means the Series A Preferred Stock, Series A-1 Preferred Stock and Series B-1 Preferred Stock of the Company.

"**Company Product**" means any product or service manufactured, marketed, distributed, licensed for commercial use or sale, or sold at any time by the Company or its Subsidiary.

"**Company Stock Plans**" means the Company's Non-Qualified Stock Option Plan and under the Company's 2012 Employee, Director and Consultant Equity Incentive Plan and any other employee benefit plan of the Company or its Subsidiary that provides for any equity award to directors, officers, consultants, agents or other participants thereunder.

"**Contract**" means any loan or credit agreement, debenture, note, bond, mortgage, indenture, deed of trust, license, lease, distribution agreement, supply agreement, marketing or sales agreement, contract or other agreement, instrument or obligation.

"**Current Company Business**" means the business of the Company and its Subsidiary as currently conducted as of the date of this Agreement.

"**Fundamental Representations**" means the representations and warranties of the Company set forth in Sections 3.1 (Corporate Organization), 3.2 (Capitalization), 3.3 (Authority) 3.10 (Tax Matters) and 3.19 (Financial Advisors and Brokers).

"**GAAP**" means generally accepted accounting principles in the United States.

"**Governmental Authority**" means any government, court, arbitrator, regulatory or administrative agency, international institution, commission or authority or other governmental instrumentality, whether federal, state, national, or local, domestic, foreign or multinational, and whether executive, legislative or judicial, of competent jurisdiction.

"**HIPAA**" means the Health Insurance Portability and Accountability Act of 1996, as amended, and the regulations promulgated thereunder.

"**Holdback Amount**" means $600,000.00; provided, however, that as long as there are no pending or closed claims for indemnification with an actual or estimated value that exceeds $300,000.00 for which any Parent Indemnified Party is seeking or has received indemnification, the Holdback Amount shall be and mean $300,000.00 as of and after the first anniversary of the Closing Date.

"**Holdback Release Payment**" means any portion of the Holdback Amount released to the Paying Agent pursuant to the terms of this Agreement.

"**Information Privacy and Security Laws**" mean all Laws that apply to the Company concerning the privacy and/or security of information pertaining to an individual, including, where applicable, HIPAA, state data breach notification Laws, state social security number protection Laws, the European Union Directive 95/46/EC, the Federal Trade Commission Act, Canada's Personal Information Protection and Electronic Documents Act, the Gramm Leach Bliley Act, the Fair Credit Reporting Act, the Fair and Accurate Credit Transactions Act, and state consumer protection Laws.

"**Knowledge of the Company**" means the actual knowledge of Donald B. Hawthorne, Andrew Levitch, Geoffrey A. McKinley, Jeff A. Moyer, Emmanuelle Pierre-Victor, Emad Lababidi, Martin Fuchs and Dale Shelton.

"**Laws**" means any foreign, national, European Union, federal, state, and local statutes, common law, ordinances, rules, regulations, resolutions, orders, determinations, writs, injunctions, awards (including, without limitation, awards of any arbitrator), judgments and decrees applicable to the specified Persons or entities.

"**Liens**" means liens, pledges, charges, mortgages, encumbrances, adverse rights or claims and security interests of any kind or nature whatsoever (including any restriction on the right to vote or transfer the same, except for such transfer restrictions of general applicability as may be provided under the Securities Act and the "blue sky" Laws of the various States of the United States).

"**Litigation**" means claims, suits, actions, litigations, causes of action, arbitrations, charges, formal hearings or proceedings, including any administrative hearings or investigations.

"**Losses**" means losses, damages, liabilities, deficiencies, actions, judgments, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys' fees and the cost of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers; provided, however, that "Losses" shall not include incidental or consequential damages or punitive damages, except in the case of fraud or to the extent actually awarded to a Governmental Authority or other third party.

"**Merger Consideration**" or "**applicable Merger Consideration**," as the context requires, refers to the amount of the Aggregate Merger Consideration received by a holder of Merger Shares at the Effective Time, based on the liquidation preference as set forth on Schedule 2.1(c).

"**NASDAQ**" means The NASDAQ Stock Market LLC.

"**Non-Consenting Shares**" means the Company Shares that are issued and outstanding immediately prior to the Effective Time and that are held by a Person who shall not have voted in favor of the Merger or consented thereto in writing.

"**Option**" means any option to acquire shares of Company Common Stock issued under any Company Stock Plan (or any predecessor plan providing for the issuance of options to any service provider of the Company or its Subsidiary).

"**Person**" means an individual, a corporation, a limited liability company, a partnership, an association, a trust or any other entity, including a Governmental Authority.

"**Personal Information**" means the information pertaining to an individual that is regulated or protected by one or more of the Information Privacy and Security Laws.

"SEC" means the United States Securities and Exchange Commission.

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Subsidiary**" when used with respect to any Person, means any corporation, limited liability company, partnership, association, trust or other entity the accounts of which would be consolidated with those of such Person in such Person's consolidated financial statements if such financial statements were prepared in accordance with GAAP, as well as any other corporation, limited liability company, partnership, association, trust or other entity of which securities or other ownership interests representing more than 50% of the equity or more than 50% of the ordinary voting power (or, in the case of a partnership, more than 50% of the general partnership interests) are, as of such date, owned by such Person or one or more Subsidiary of such Person or by such Person and one or more Subsidiary of such Person.

"**Transactions**" means each of the transactions contemplated by this Agreement, including the Merger.

"**Warrants**" means the outstanding Warrants to acquire Company Common Stock or Company Preferred Stock set forth on Schedule 2.3(b).

The following terms are defined in the section of this Agreement set forth after such term below:

2012 Plan	Section 2.3(a)
Agreement	Recitals
Balance Sheet Date	Section 3.5(i)
Bankruptcy and Equity Exception	Section 3.3(a)
Cap	Section 5.12(a)
Certificate of Merger	Section 1.3
Certificates	Section 2.2(b)
CLIA	Section 3.8(a)
Closing	Section 1.2
Closing Date	Section 1.2
Code	Section 1.8
Company	Recitals
Company 401(k) Plan	Section 5.7(d)
Company Balance Sheet	Section 3.5(i)
Company Board Recommendation	Section 3.3(b)
Company Charter Documents	Section 3.1(c)
Company Common Stock	Recitals
Company Disclosure Schedule	Article III
Company Financial Statements	Section 3.5(a)
Company Intellectual Property	Section 3.15(a)(i)
Company Licenses	Section 3.8(a)
Company Plans	Section 3.11(a)
Company Stockholder Approval	Section 3.3(d)
Confidentiality Agreement	Section 5.3(b)
Continuing Employee	Section 5.7(c)
Copyrights	Section 3.15(a)(ii)
DGCL	Section 1.1
Dissenting Shares	Section 2.1(e)
Dissenting Stockholders	Section 2.1(e)
Effective Time	Section 1.3
Engagement Letter	Section 3.19
Environmental Claims	Section 3.12(i)(i)
Environmental Damages	Section 3.12(i)(ii)
Environmental Laws	Section 3.12(i)(iii)
Environmental Permits	Section 3.12(i)(iv)
ERISA	Section 3.11(a)
ERISA Affiliate	Section 5.7(c)
Exchange Act	Section 4.7(a)
Evaluation Date	Section 4.7(d)
FDA	Section 3.8(f)
FDCA	Section 3.8(c)
Final Holdback Release Date	Section 7.4(b)
Financial Advisor	Section 3.18
First Holdback Release Date	Section 7.4(b)
Hazardous Materials	Section 3.12(i)(v)
Indemnified Party	Section 7.3(a)
Indemnifying Party	Section 7.3(a)
Intellectual Property Rights	Section 3.15(a)(ii)
IRS	Section 3.10(o)
Leased Real Property	Section 3.14(b)
License Agreements	Section 3.15(c)

Marks	Section 3.15(a)(ii)
Material Contract(s)	Section 3.13(a)(xiii)
Materiality Qualifier	Section 6.2(a)(i)
Merger	Recitals
Merger Shares	Section 2.1(c)
Merger Sub	Recitals
Multiemployer Plan	Section 3.11(a)
Notice of Claim	Section 7.3(a)
Notice of Disputed Claim	Section 7.3(a)
Other Company Plan	Section 5.7(e)
Owned Real Property	Section 3.14(a)
Parent	Recitals
Parent Benefit Plans	Section 5.7(c)
Parent Indemnified Party	Section 7.2(a)
Parent Material Adverse Effect	Section 4.2(b)
Patents	Section 3.15(a)(ii)
Paying Agent	Section 2.2(a)
Paying Agent Agreement	Section 2.2(a)
Payment Program	Section 3.8(h)
Plan Termination Date	Section 5.7(d)
Policies	Section 3.16
Pre-Closing Taxes	Section 5.11(a)
Preferred Stock	Section 3.2(a)
Real Property Lease	Section 3.14(b)
Release	Section 3.12(i)(vi)
Registration Rights Agreement	Section 5.10
Remediation	Section 3.12(i)(vii)
Representative	Recitals
Restated Certificate	Section 2.1(c)
Rights Plan	Section 3.20
SEC Documents	Section 4.7(a)
Share(s)	Section 2.1
Software	Section 3.15(a)(iii)
Straddle Period	Section 5.11(c)
Stockholder Parties	Recitals
Stockholder Party Basket Exceptions	Section 7.5(c)
Subsidiary Organizational Documents	Section 3.1(c)
Surviving Corporation	Section 1.1
Tax Contest	Section 5.11(c)
Tax Returns	Section 3.10(r)
Taxes	Section 3.10(r)
Trade Secrets	Section 3.15(a)(ii)
Uncertificated Shares	Section 2.2(b)
WARN	Section 3.11(k)

Section 8.12 Interpretation; Other.

(a) When calculating the period of time before which, within which or following which any act is to be done or step taken pursuant to this Agreement, the date that is the reference date in calculating such period is excluded. If the last day of such period is a non-business day, the period in question ends on the next succeeding business day. Any reference in this Agreement to $ means United States dollars. Unless the context otherwise requires, any reference in this Agreement to gender includes all genders, and words imparting the singular number only include the plural and vice versa. The provision of a Table of Contents, the division of this Agreement into Articles, Sections and other subdivisions and the insertion of headings are for convenience of reference only and do not alter the meaning of, or affect the construction or interpretation of, this Agreement. Unless the context otherwise requires, all references in this Agreement to any "Article" or "Section" are to the corresponding Article or Section of this Agreement. Unless the context otherwise requires, the words "hereby," "herein," "hereinafter," "hereof," and "hereunder" refer to this Agreement as a whole and not merely to the provision in which such words appear. The word "including," or any variation thereof, means "including, without limitation" and does not limit any general statement that it follows to the specific or similar items or matters immediately following it. References in this Agreement to a contract or agreement mean such contract or agreement as amended or otherwise modified from time to time. All references in this Agreement to specific Laws or to specific sections or provisions of Laws, apply to the respective federal, state, local, or foreign Laws that bear the names so specified and to any succeeding or amended Law, section, or provision corresponding thereto. Any reference in this Agreement to the "parties" to this Agreement means the signatories to this Agreement and their successors and permitted assigns, and does not include any third party. To the extent this Agreement refers to information or documents to be made available to Parent or Merger Sub, the Company shall be deemed to have satisfied such obligation if the Company or any Company Representatives has made such information or document available (A) in the online data room managed by the Company in connection with the Transactions at least one day prior to the date of this Agreement, or (B) by delivering such document or information (in writing, including by electronic transmission) to Parent at least one day prior to the date of this Agreement.

(b) The parties hereto have participated jointly in the negotiation and drafting of this Agreement and, in the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as jointly drafted by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provision of this Agreement.

(c) This Agreement may only be enforced against the parties hereto. All claims or causes of action (whether in contract, tort or otherwise) arising out of or relating to this Agreement (including the negotiation, execution or performance of this Agreement and any representation or warranty made in or in connection with this Agreement or as an inducement to enter into this Agreement) may be made only against the parties hereto. No past, present or future officer, director, stockholder, employee, incorporator, member, partner, agent, attorney, representative or Affiliate of any party hereto (including any person negotiating or executing this Agreement on behalf of a party hereto) has any liability or obligation with respect to this Agreement or with respect to any claim or cause of action (whether in contract, tort or otherwise) arising out of or relating to this Agreement (including the negotiation, execution or performance of this Agreement and any representation or warranty made in or in connection with this Agreement or as an inducement to enter into this Agreement).

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first above written.

OPGEN, INC.

By: /s/ Timothy C. Dec
Name:Timothy C. Dec
Title:CFO

VELOX ACQUISITION CORP.

By: /s/ Timothy C. Dec
Name:Timothy C. Dec
Title:CFO

ADVANDX, INC.

By: /s/ Donald B. Hawthorne
Name:Donald B. Hawthorne
Title:Chief Executive Officer

FOR PURPOSES OF ARTICLE VII ONLY:

REPRESENTATIVES:

MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William J. Taranto
Name:William J. Taranto
Title:President

SLS INVEST AB

By: /s/ Hans Andreasson
Name:Hans Andreasson
Title:Investment Director

STOCKHOLDER PARTIES:
MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William J. Taranto
Name:William J. Taranto
Title:President

SLS INVEST AB

By: /s/ Hans Andreasson
Name:Hans Andreasson
Title:Investment Director

LD PENSIONS

By: /s/ Lars Wallberg
Name:Lars Wallberg
Title:Finansdirektor/CFO

By: /s/ Karin Korneliussen
Name:Karin Korneliussen
Title:Controller

MARTIN FUCHS

By: /s/ Martin Fuchs

COMMON STOCK AND NOTE PURCHASE AGREEMENT

THIS COMMON STOCK AND NOTE PURCHASE AGREEMENT, is made as of July 14, 2015 (this "**Agreement**"), by and among OpGen, Inc., a Delaware corporation (the "**Company**"), and Merck Global Health Innovation Fund, LLC, a Delaware limited liability company (the "**Investor**"). Certain capitalized terms used in this Agreement are set forth in Section 1.4.

W I T N E S S E T H

WHEREAS, the Company desires to sell to the Investor, and the Investor desires to purchase from the Company, on the terms and conditions set forth in this Agreement, (i) 1,136,364 shares of Common Stock of the Company, par value $0.01 per share (collectively, the "**Shares**"), at a purchase price of $4.40 per share, or an aggregate purchase price of $5,000,001.60, and (ii) a Senior Secured Promissory Note in the aggregate principal amount of $1,000,000, having the rights, preferences, privileges and restrictions set forth in the form attached to this Agreement as Exhibit A (the "**Note**").

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

1. Purchase and Sale of Notes.

1.1 Purchase and Issuance of Notes. Subject to the terms and conditions of this Agreement, the Investor agrees to purchase at the Closing and the Company agrees to sell and issue to the Investor at the Closing, the Shares and the Note, for an aggregate purchase price of $6,000,001.60 (the "**Purchase Price**").

1.2 Closing; Delivery.

(a) The purchase and sale of the Shares and the Note shall take place either remotely via the exchange of documents and signatures or at the offices of Ballard Spahr LLP, 1735 Market Street, 51st Floor, Philadelphia, PA 19103, at 10:00 a.m. on the date above first written or at such other date and time or such other place as the Company and the Investor mutually agree (the "**Closing Date**").

(b) At the Closing, the Company shall issue to the Investor the Shares and the Note being purchased by the Investor against payment of the Purchase Price therefor by check payable to the Company or by wire transfer to a bank account designated by the Company.

1.3 Use of Proceeds. In accordance with the directions of the Board of Directors, the Company will use the proceeds from the sale of the Shares and the Note for working capital and other general corporate purposes.

1.4 Defined Terms Used in this Agreement. In addition to the terms defined above, the following terms used in this Agreement shall have the meanings set forth or referenced below.

(a) "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

(b) "**Code**" means the Internal Revenue Code of 1986, as amended.

(c) "**Common Stock**" means the common stock, par value $0.01 per share, of the Company.

(d) "**Convertible Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

(e) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(f) "**FDA Laws**" means (i) the Federal Food, Drug and Cosmetic Act of 1938, as amended, (ii) the Public Health Service Act of 1944, and (iii) the rules and regulations promulgated and enforced by the FDA thereunder.

(g) "**Healthcare Laws**" means all statutes, regulations, rules, orders, ordinances and other laws of any governmental authority with respect to applicable healthcare regulatory matters, including, but not limited to, the federal Medicare or Medicare Advantage, or federal or state Medicaid statutes, the federal Tricare statute, 42 U.S.C. § 1320a-7 (Exclusion Statute), 42 U.S.C. § 1320a-7a (the Civil Monetary Penalty Law), 42 U.S.C. § 1320a-7b (federal Anti-Kickback Statute), 42 U.S.C. § 1320a-7c (federal Fraud and Abuse Control Statute), 42 U.S.C. § 1395nn (Stark Law), 31 U.S.C. § 3729 et seq. (federal False Claims Act), 18 U.S.C. §§ 287 and 1001 (Criminal False Claims Statutes), 31 U.S.C. § 3801 et seq. (Program Fraud Civil Remedies Act of 1986), the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations, as each is amended from time to time ("**HIPAA**"), the Health Information Technology for Clinical Health Act provisions of the American Recovery and Reinvestment Act of 2009, Pub. Law No. 111-5, and its implementing regulations ("**HITECH**"), Social Security laws, all state laws for medical assistance enacted or promulgated in connection with federal laws, any mail fraud statute, any prohibition on the making of any false claim, false statement or misrepresentation of facts to any third party payor (including commercial payors) or any federal or state healthcare program, all laws relating to fee-splitting, all laws relating to the corporate practice of medicine, all laws relating to insurance, all laws governing assignment, reassignment, global billing and/or purchased diagnostic tests, all Medicare Advantage marketing regulations, rules and restrictions, the federal Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Act, and any analogous state statutes or related regulations or any other laws that govern or regulate the health care industry.

(h) "**Investor**" means Merck Global Health Innovation Fund, LLC.

(i) "**Key Employee**" means any executive-level employee (including division directors and vice president-level positions) as well as any employee or consultant who either alone or in concert with others develops, invents, programs or designs any Company Intellectual Property.

(j) "**Knowledge**," including the phrase "**to the Company's knowledge**," shall mean the actual knowledge after reasonable inquiry of Evan Jones, Kevin Krenitsky, Timothy C. Dec, Vadim Sapiro, and David Hoekzema.

(k) "**Material Adverse Effect**" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Company.

(l) "**Merger**" the merger of Merger Sub with and into AdvanDx, Inc.

(m) "**Merger Agreement**" means the Agreement and Plan of Merger between the Company, AdvanDx, Inc., a Delaware corporation, Velox Acquisition Corp., a Delaware corporation ("**Merger Sub**") and the Stockholder Parties thereto, dated as of the date of this Agreement.

(n) "**NASDAQ**" means The NASDAQ Stock Market LLC.

(o) "**Options**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(p) "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(q) "**Personal Information**" means (i) any information with respect to which there is a reasonable basis to believe that the information can be used to identify an individual, including demographic information; (ii) Social Security numbers; or (iii) any information that is regulated or protected by one or more Privacy and Security Laws.

(r) "**Privacy and Security Laws**" means all applicable laws concerning the privacy and/or security of Personal Information, and all regulations promulgated thereunder, including but not limited to HIPAA, HITECH, the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act, the Fair and Accurate Credit Transaction Act, the Federal Trade Commission Act, the Privacy Act of 1974, the CAN-SPAM Act, the Telephone Consumer Protection Act, the Telemarketing and Consumer Fraud and Abuse Prevention Act, Children's Online Privacy Protection Act, state Social Security number protection laws, state data breach notification laws, state consumer protection laws, the European Union Directive 95/46/EC and Canada's Personal Information Protection and Electronic Documents Act.

(s) **"Registration Rights Agreement"** means the Registration Rights Agreement by and between the Company and the Investor dated the date hereof and attached hereto as Exhibit C.

(t) "**SEC**" means the U.S. Securities and Exchange Commission.

(u) "**SEC Documents**" means all forms, reports and documents required to be filed by the Company with the SEC pursuant to the federal securities laws and the SEC's rules and regulations thereunder.

(v) "**Securities**" means the Shares and the Note.

(w) "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(x) "**Security Agreement**" means the Security Agreement by and between the Company and the Investor dated as of the date hereof and attached hereto as Exhibit B.

(y) "**Short Sales**" include, without limitation, (i) all "short sales" as defined in Rule 200 promulgated under Regulation SHO under the Exchange Act, whether or not against the box, and all types of direct and indirect stock pledges, forward sale contracts, options, puts, calls, short sales, swaps, "put equivalent positions" (as defined in Rule 16a-1(h) under the Exchange Act) and similar arrangements (including on a total return basis), and (ii) sales and other transactions through non-U.S. broker dealers or foreign regulated brokers (but shall not be deemed to include the location and/or reservation of borrowable shares of Common Stock).

2. Representations and Warranties of the Company. The Company hereby represents and warrants to Investor that, except as set forth in the SEC Documents (other than any information in the "Risk Factors" or "Forward-Looking Statements" sections of such SEC Documents or other statements in such SEC Documents similarly predictive or forward-looking in nature), the following representations are true and complete as of the Closing Date immediately prior to the Merger, except as otherwise indicated.

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a Material Adverse Effect.

2.2 Capitalization. The number of shares and type of all authorized, issued and outstanding capital stock, options and other securities of the Company (whether or not presently convertible into or exercisable or exchangeable for shares of capital stock of the Company) is set forth in Schedule 2.2 hereto. The Company has not issued any capital stock since the date of its most recently filed SEC Report other than to reflect stock option and warrant exercises that do not, individually or in the aggregate, have a material effect on the issued and outstanding capital stock, options and other securities. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents that have not been effectively waived as of the Closing Date. Except as set forth on Schedule 2.2 or a result of the purchase and sale of the Shares, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company is or may become bound to issue additional shares of Common Stock. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. All of the outstanding shares of capital stock of the Company are validly issued, fully paid and nonassessable, have been issued in compliance with all applicable federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. No further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the Company's Knowledge, between or among any of the Company's stockholders.

2.3 Subsidiaries. The Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement.

Authorization. All corporate action required to be taken by the Company's Board of Directors and stockholders in order to authorize the Company to enter into this Agreement at the Closing, and to issue and sell the Shares and the Note at the Closing, has been taken or will be taken prior to the Closing. All action on the part of the officers of the Company necessary for the execution and delivery of this Agreement, the performance of all obligations of the Company under this Agreement to be performed as of the Closing, and the issuance and delivery of the Securities has been taken or will be taken prior to the Closing. This Agreement, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Registration Rights Agreement may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of the Securities. The Securities, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and non-assessable and free of restrictions on transfer other than restrictions on transfer under this Agreement, applicable state and federal securities laws and liens or encumbrances created by or imposed by the Investor. Assuming the accuracy of the representations of the Investor in Section 3 of this Agreement and subject to the filings described in Section 2.6 below, the Securities will be issued in compliance with all applicable federal and state securities laws.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations made by the Investor in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Securities Matters.

(a) The Company has filed all SEC Documents, all of which, as of their respective dates, complied in all material respects with all applicable requirements of the Exchange Act. Except to the extent that information contained in any such SEC Document has been revised, amended, supplemented or superseded by a subsequent SEC Document, none of the SEC Documents including, without limitation, any financial statements or schedules included therein, as of their respective dates, contained any untrue statement of a material fact or omitted to state a material fact or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(b) The balance sheets and statements of operations, stockholders' equity and cash flows of the Company contained in the SEC Documents (a) comply as to form in all material respects with applicable accounting requirements and rules and regulations of the SEC with respect thereto, (b) have been prepared in accordance with GAAP applied on a basis consistent with prior periods (and, in the case of unaudited financial information, on a basis consistent with year-end audits), (c) are in accordance with the books and records of the Company and (d) present fairly in all material respects the financial condition of the Company at the dates therein specified and the results of its operations and changes in financial position for the periods therein specified.

(c) The SEC Documents include all certifications and statements required of it, if any, by (i) Rule 13a-14 or 15d-14 under the Exchange Act, and (ii) 18 U.S.C. Section 1350 (Section 906 of the Sarbanes-Oxley Act of 2002), and each of such certifications and statements contain no qualifications or exceptions to the matters certified therein other than a knowledge qualification, permitted under such provision, and have not been modified or withdrawn and neither the Company nor any of its officers has received any notice from the SEC questioning or challenging the accuracy, completeness, form or manner of filing or submission of such certifications or statements.

(d) Except as set forth in the SEC Documents, the Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (a) transactions are executed in accordance with management's general or specific authorizations, (b) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (c) access to assets is permitted only in accordance with management's general or specific authorization and (d) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as set forth in the SEC Documents, the Company has established disclosure controls and procedures for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company is made known to the officers by others within those entities. The Company's officers have evaluated the effectiveness of the Company's controls and procedures as of the date prior to the filing date of the most recently filed periodic report under the Exchange Act (such date, the "**Evaluation Date**"). Since the Evaluation Date**,** there have been no significant changes in the Company's internal controls or, to the Company's Knowledge, in other factors that could significantly affect the Company's internal controls.

(e) The Company has otherwise complied in all material respects with the Securities Act of 1933, Exchange Act of 1934, Sarbanes-Oxley Act of 2002 and all other applicable federal and state securities laws, rules and regulations.

(f) The Company's common stock is listed on NASDAQ the under the symbol "OPGN" and the Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance in all material respects with all rules and regulations of NASDAQ applicable to it and the Company's common stock. The issuance of the Securities under this Agreement does not contravene the rules and regulations of NASDAQ.

2.8 Litigation. There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or to the Company's knowledge, currently threatened (i) against the Company or any officer, director or Key Employee of the Company arising out of their employment or board relationship with the Company; or (ii) that questions the validity of this Agreement or the right of the Company to enter into it, or to consummate the transactions contemplated by this Agreement; or (iii) that would reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect. Neither the Company nor, to the Company's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors or Key Employees, such as would affect the Company). There is no action, suit, proceeding or investigation by the Company pending or which the Company intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened in writing (or any basis therefor known to the Company) involving the prior employment of any of the Company's employees, their services provided in connection with the Company's business, or any information or techniques allegedly proprietary to any of their former employers, or their obligations under any agreements with prior employers.

2.9 Intellectual Property. The Company (i) owns or possesses adequate right to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, formulae, customer lists, know-how and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures, "**Intellectual Property**") necessary for the conduct of its business as currently operated and as proposed to be operated as described in the SEC Documents, and (ii) has no knowledge that such conduct of its business conflicts, will conflict or may reasonably be expected to conflict with, and it has not received any notice of any claim of conflict with, any such rights of others. The Company has not granted or assigned to any other Person any right to sell the current products and services of the Company or those products and services described in the SEC Documents. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. To the Company's knowledge, there is no infringement by third parties of any of its Intellectual Property, there is no pending or threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any of its Intellectual Property and the Company is unaware of any facts that would form a reasonable basis for any such claim. The Company has not received any written communications alleging that the Company has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person. The Company has not received any claim for royalties or other compensation from individuals, including employees or former employees of the Company who have made or are alleged to have made inventive contributions to the Company's technology or products, that are pending or unsettled, and the Company has no obligation to pay royalties or other compensation to any such individuals. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by the Company. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted.

2.10 Compliance with Other Instruments. The Company is not in violation or default (a) of any provisions of its Restated Certificate or Bylaws, nor will be at the time of filing, in violation or default under any provisions of its Certificate of Amendment, (b) of any instrument, judgment, order, writ or decree, (c) under any note, indenture or mortgage, or (d) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound that is required to be listed on the Disclosure Schedule, the violation of which would have a Material Adverse Effect. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event which results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to the Company.

2.11 Agreements; Actions.

(a) There are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound that involve (i) obligations (contingent or otherwise) of, or payments to, the Company in excess of $50,000, (ii) the license of any patent, copyright, trademark, trade secret or other proprietary right to or from the Company, (iii) the grant of rights to manufacture, produce, assemble, license, market, or sell its products to any other Person that limit the Company's exclusive right to develop, manufacture, assemble, distribute, market or sell its products, or (iv) indemnification by the Company with respect to infringements of proprietary rights.

(b) The Company has not (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or incurred any other liabilities in excess of $25,000 or in excess of $50,000 in the aggregate, (iii) made any loans or advances to any Person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights, other than the sale of its inventory in the ordinary course of business. For the purposes of subsections (b) and (c) of this Section 2.11, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same Person (including Persons the Company has reason to believe are affiliated with each other) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(c) The Company is not a guarantor or indemnitor of any indebtedness of any other Person.

2.12 Certain Transactions.

(a) Other than (i) standard employee benefits generally made available to all employees, (ii) non-disclosure, non-competition, assignment of inventions agreements and similar agreements between the Company and certain Key Employees and consultants, (iii) standard director and officer indemnification agreements approved by the Board of Directors, and (iv) the purchase of shares of the Company's capital stock and the issuance of options to purchase shares of the Company's Common Stock, in each instance, approved in the written minutes or by action by written consent of the Board of Directors (previously made available to the Investor or its counsel), there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, consultants or Key Employees, or any Affiliate thereof.

(b) The Company is not indebted, directly or indirectly, to any of its directors, officers or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of the Company's directors, officers or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to the Company.

2.13 Absence of Liens. The property and assets that the Company owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets or that relate to equipment financing or capital leases. With respect to the property and assets it leases, the Company is in material compliance with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets.

2.14 Financial Statements. The financial statements, including the notes thereto and the supporting schedules, included in the SEC Documents comply in all material respects with the requirements of the Securities Act and the Exchange Act, and present fairly the financial position as of the dates indicated and the cash flows and results of operations for the periods specified of the Company. Except as otherwise stated in the SEC Documents, such financial statements have been prepared in conformity with United States generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods involved. The supporting schedules included in the SEC Documents present fairly as of the dates indicated and for the periods specified the information required to be stated therein. No other financial statements, notes thereto or supporting schedules are required to be included or incorporated by reference in the SEC Documents. The other financial tables and data included in the SEC Documents present fairly as of the dates indicated and for the periods specified the information included therein and have been prepared on a basis consistent with that of the financial statements included in the SEC Documents and the books and records of the entities whose information is presented therein.

2.15 Changes. To the Company's knowledge, since December 31, 2014, there have been no events or circumstances of any kind that have had or could reasonably be expected to result in a Material Adverse Effect.

2.16 Employee Matters. The Company is not a party to an "employee benefit plan," as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"), which: (i) is subject to any provision of ERISA and (ii) is or was at any time maintained, administered or contributed to by the Company or any of its ERISA Affiliates (as defined hereafter). These plans are referred to collectively herein as the "**Employee Plans**." An "**ERISA Affiliate**" of any person or entity means any other person or entity which, together with that person or entity, could be treated as a single employer under Section 414(b), (c), (m) or (o) of the Code. Each Employee Plan has been maintained in material compliance with its terms and the requirements of applicable law. No Employee Plan is subject to Title IV of ERISA. The SEC Documents identifies each employment, severance or other similar agreement, arrangement or policy and each material plan or arrangement providing for insurance coverage (including any self-insured arrangements), workers' compensation, disability benefits, severance benefits, supplemental unemployment benefits, vacation benefits or retirement benefits, or deferred compensation, profit-sharing, bonuses, stock options, stock appreciation rights or other forms of incentive compensation, or post-retirement insurance, compensation or benefits, which: (i) is not an Employee Plan; (ii) is entered into, maintained or contributed to, as the case may be, by the Company or any of its ERISA Affiliates; and (iii) covers any officer or director or former officer or director of the Company or any of its ERISA Affiliates. These agreements, arrangements, policies or plans are referred to collectively as "**Benefit Arrangements.**" Each Benefit Arrangement has been maintained in material compliance with its terms and with the requirements of applicable law.

2.17 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, county, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.18 Insurance. The Company has in full force and effect fire and casualty insurance policies with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

2.19 Permits; Compliance with Laws.

(a) The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. The Company is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

(b) The Company is in compliance in all material respects with all applicable federal, state and local laws (including without limitation all Healthcare Laws and the Clinical Laboratories Improvement Act of 1967, as amended ("**CLIA**")), rules, regulations, ordinances, directives, judgments, decrees or orders of any judicial, regulatory or other legal or governmental agency or body, foreign or domestic (including without limitation the United States Food and Drug Administration (the "**FDA**")) in any country or territory in which the Company operates.

(c) The Company's operations are currently in compliance with all state and federal laboratory licensure laws (including but not limited to CLIA), and the Company holds all necessary licenses and permits to operate its business as currently conducted.

(d) Neither the Company nor any of its officers, directors, employees or stockholders has engaged in any activity for, or on behalf of the operations of the Company, that is in violation of, or, as a result of such violation, is cause for civil or criminal penalties, mandatory or permissive exclusion or other administrative sanctions under any Healthcare Laws.

(e) None of the Company's products and services qualify as designated health services ("**DHS**"). The Company does not currently have any financial relationships with health care providers requiring compliance with the Stark Law or any applicable state self-referral laws.

(f) The Company's activities and products are either subject to enforcement discretion or exempt from regulation by the FDA.

(g) The Company is not a "Covered Entity" (as that term is defined under HIPAA) and is not currently a business associate of any Covered Entity. The Company is now, and has been in the last six years, in material compliance with, and has developed and, where applicable, implemented policies and procedures and training programs to help ensure past, current and ongoing compliance with all applicable Privacy and Security Laws.

(h) To the Company's Knowledge, it is not under investigation by any governmental authority for a violation of any Privacy and Security Laws, nor has it received any notices from the United States Department of Health and Human Services Office of Civil Rights relating to any such violations.

(i) Neither the Company nor any of its officers, directors, or employees is a party to, or bound by, any order, individual integrity agreement, corporate integrity agreement or other formal or informal agreement with any governmental authority concerning compliance with any Healthcare Laws, FDA Laws, or Privacy and Security Laws. Neither the Company nor any of its officers, directors, or employees has reporting obligations pursuant to any settlement agreement entered into with any governmental authority.

(j) The Company is not enrolled with, or required to be enrolled with any governmental or private payors, and to the extent it has been in the past, the Company has complied with all enrollment and participation requirements.

Environmental and Safety Laws. The Company has at all times operated its business in material compliance with all Environmental Laws, and no material expenditures are or will be required in order to comply therewith. The Company has not received any notice or communication that relates to or alleges any actual or potential violation or failure to comply with any Environmental Laws that could reasonably be expected to result in a Material Adverse Effect. As used herein, the term "**Environmental Laws**" means all applicable laws and regulations, including any licensing, permit or reporting requirements, and any action by any federal, state, local or foreign government entity pertaining to the protection of the environment, protection of public health, protection of worker health and safety or the handling of hazardous materials, including without limitation the Clean Air Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Federal Water Pollution Control Act, the Hazardous Materials Transportation Act, the Resource Conservation and Recovery Act and the Toxic Substances Control Act.

Money Laundering Laws. The operations of the Company are and have been conducted at all times in compliance with applicable financial record keeping and reporting requirements and money laundering statutes of the United States and, to the Company's knowledge, all other jurisdictions to which the Company is subject, including under: (i) the Bank Secrecy Act; (ii) the Uniting and Strengthening of America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001; (iii) the Foreign Corrupt Practices Act of 1977; (iv) the Currency and Foreign Transactions Reporting Act; (v) ERISA; (vi) the Money Laundering Control Act; (vii) the rules and regulations promulgated under any such law or any successor law, or any judgment, decree or order of any applicable administrative or judicial body relating to such law; and (viii) any corresponding law, rule, regulation, ordinance, judgment, decree or order of any state or territory of the United States or applicable foreign jurisdiction or any administrative or judicial body thereof (collectively, the "**Money Laundering Laws**"); and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

OFAC. None of the Company or, to the knowledge of the Company, any director, officer, agent, employee or Affiliate of the Company is currently subject to any sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("**OFAC**"); and the Company will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any sanctions administered by OFAC.

3. Representations and Warranties of the Investor. The Investor hereby represents and warrants to the Company that:

3.1 Authorization. The Investor has full power and authority to enter into this Agreement to which the Investor is a party. This Agreement, when executed and delivered by the Investor, will constitute valid and legally binding obligations of the Investor, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies or (b) to the extent the indemnification provisions contained in the Registration Rights Agreement may be limited by applicable federal or state securities laws.

3.2 Purchase Entirely for Own Account. This Agreement is made with the Investor in reliance upon the Investor's representation to the Company, which by the Investor's execution of this Agreement, the Investor hereby confirms, that the Securities to be acquired by the Investor will be acquired for investment for the Investor's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Investor has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Investor further represents that the Investor does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Securities. The Investor has not been formed for the specific purpose of acquiring the Securities.

3.3 Disclosure of Information. The Investor has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Securities with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Investor to rely thereon.

3.4 Restricted Securities. The Investor understands that the Securities have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Investor's representations as expressed herein. The Investor understands that the Securities are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Investor must hold the Securities indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Investor acknowledges that the Company has no obligation to register or qualify the Securities for resale except as set forth in the Registration Rights Agreement. The Investor further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Securities, and on requirements relating to the Company which are outside of the Investor's control, and which the Company is under no obligation and may not be able to satisfy.

3.5 Legends. The Investor understands that the Securities, including any securities issued in respect of or exchange for the Securities, may bear one or all of the following legends:

(a) "THE SECURITIES REPRESENTED BY THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(b) Any legend set forth in, or required by, this Agreement or a substantially similar legend set forth in, or required by, this Agreement.

(c) Any legend required by the securities laws of any state to the extent such laws are applicable to the Securities represented by the certificate so legended.

3.6 Accredited Investor. The Investor is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

3.7 No Disqualification Event. With respect to the **Securities**, neither the Investor nor any of its directors, executive officers, other officers is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) promulgated under the Securities Act.

3.8 No General Solicitation. Neither the Investor, nor any of the Investor's officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Securities.

3.9 Certain Trading Activities. Other than with respect to the transactions contemplated herein, since the time that the Investor was first contacted by the Company or any other Person regarding the transactions contemplated hereby, neither the Investor nor any Affiliate of the Investor which (x) had knowledge of the transactions contemplated hereby, (y) has or shares discretion relating to the Investor's investments or trading or information concerning the Investor's investments, including in respect of the Securities, and (z) is subject to the Investor's review or input concerning such Affiliate's investments or trading (collectively, "Trading Affiliates") has directly or indirectly, nor has any Person acting on behalf of or pursuant to any understanding with the Investor or Trading Affiliate, effected or agreed to effect any purchases or sales of the securities of the Company (including, without limitation, any Short Sales involving the Company's securities). Notwithstanding the foregoing, in the case of the Investor and/or Trading Affiliate that is, individually or collectively, a multi-managed investment bank or vehicle whereby separate portfolio managers manage separate portions of the Investor's or Trading Affiliate's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of the Investor's or Trading Affiliate's assets, the representation set forth above shall apply only with respect to the portion of assets managed by the portfolio managers that have knowledge about the financing transaction contemplated by this Agreement. Other than to other Persons party to this Agreement, the Investor has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect short sales or similar transactions in the future. The Investor is aware that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of Common Stock and other activities with respect to the Common Stock by the Investor.

3.10 Residence. The Investor's office in which it maintains its principal place of business is Two Merck Drive 2W116, Whitehouse Station, New Jersey 08889.

4. Covenants and Agreements.

4.1 Right of Participation. Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Investor shall have a right to participate in such offering of New Securities on a pro rata basis based on its percentage equity ownership in the Company.

(a) The Company shall give written notice (the "**Notice of Issuance**") to the Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities. The Investor shall have thirty (30) days from the date of the Notice of Issuance to agree to purchase its pro rata share of such New Securities for the same consideration, and otherwise upon the terms specified in the Notice of Issuance by giving written notice to the Company, and stating therein the quantity of New Securities to be purchased by Investor. The Company and Investor shall select a date not later than twenty (20) days (or longer if required by law) after the expiration of the thirty (30) day notice period referenced above for the closing of the purchase and sale of the New Securities. In the event any purchase by Investor is not consummated, other than as a result of the fault of the Company, within the provided time period, the Company may issue the New Securities subject to purchase by Investor free and clear from the restrictions of this Section 4.1. Any New Securities not elected to be purchased by Investor may be sold by the Company to the Person to which the Company intended to sell such New Securities on terms and conditions no less favorable to the Company than those offered to Investor.

(b) The right of participation in this Section 4.1 shall not be applicable to Exempted Securities. For purposes of this Agreement, "**Exempted Securities**" shall mean:

i. shares of Common Stock, Options or Convertible Securities issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock;

ii. shares of Common Stock or Options issued or issuable to employees or directors of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Company;

iii. shares of Common Stock, Options or Convertible Securities issued or issuable to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Company;

iv. shares of Common Stock issued pursuant to the bona fide acquisitions, mergers or similar transactions, as approved by the Board of Directors; or

v. shares of Common Stock issued in connection with any future licensing of technology from third parties, as approved by the Board of Directors.

4.2 Termination; No Transfer. The Investor's rights pursuant to Section 4.1 shall terminate in the event (i) that the Investor no longer holds at least five percent (5%) of the outstanding common stock of the Company, or (ii) of a Change of Control. For purposes hereof, a "**Change of Control**" means the sale of all or substantially all the assets of the Company; any merger, consolidation or acquisition of the Company with, by or into another corporation, entity or person; or any change in the ownership of more than fifty percent (50%) of the voting capital stock of the Company in one or more related transactions. The Investor's rights pursuant to Section 4.1 are not transferable by the Investor.

4.3 Board Representation. On or as soon as practicable following the Closing Date, the Company's Board of Directors shall be expanded to seven (7) members and the Board of Directors shall fill the vacancy with one designee of the Investor, who shall be determined by the Investor subject to the consent of the Company which consent shall not be unreasonably withheld. For as long as Investor holds at least 5% of the outstanding common stock of the Company, the Board of Directors shall nominate such Investor designee, or any replacement, if applicable, for election by the stockholders at each annual or special meeting of the stockholders at which directors are elected. The Company shall enter into an indemnification agreement with such designee and provide director and officer insurance coverage reasonably acceptable to the Investor.

4.4 Indemnification.

(a) For a period of twenty-four (24) months following the Closing Date, the Company hereby indemnifies and holds harmless the Investor, to the extent of any Losses incurred by Investor in excess of the amount of the Merger Consideration (as defined in the Merger Agreement) actually received by the Investor in connection with the Company's acquisition of AdvanDx, Inc. (the "**AdvanDx Transaction**"), valued as of the time of the closing of the AdvanDx Transaction, solely for any claims brought against the Investor by any other stockholder of AdvanDx, Inc. in connection with the AdvanDx Transaction. This indemnification does not provide any indemnification of the Investor against any Losses incurred in connection with any other pending or future litigation unrelated to the AdvanDx Transaction. For purposes of this Section 4.4, defined terms used without definition have the meanings set forth in the Merger Agreement.

(b) If the Investor seeks indemnification under this Section 4.4 with respect to any indemnifiable matter it shall promptly notify the Company in writing (any such notice, a "**Notice of Claim**"); provided, however, that no delay on the part of the Investor in notifying the Company shall relieve the Company from any obligation hereunder except to the extent the Company is materially prejudiced thereby. The Notice of Claim shall state the nature and basis of such claim or event, the amount thereof to the extent known and the basis of the Investor's belief that it is or may be entitled to indemnification with respect thereto.

(c) If a claim for indemnification involves Litigation, the Company shall be entitled (but not obligated) to defend the Investor against such claim with counsel selected by the Investor and reasonably satisfactory to the Company, and the Investor may participate in the defense of such claim at its own expense. Neither the Company nor the Investor shall consent to the entry of any judgment or enter into any settlement with respect to such claim without the prior written consent of the other (which consent shall not be unreasonably withheld). Notwithstanding the foregoing, the Investor shall have the right to assume control of the defense of any such claim and the Company shall pay the reasonable fees and expenses of the Investor's counsel if (i) the Investor and Company have significantly divergent interests, or (ii) the named parties to any such claim include both the Investor and the Company, and the Investor has defenses available to it that are unavailable to the Company, or (iii) such claim seeks injunctive relief, specific performance, or other equitable relief from, or seeks to impose any criminal penalty, fine or other sanction on, the Investor. In no case shall the Company be liable for the fees and disbursements of more than one counsel (in addition to local counsel).

5. Conditions to the Investor's Obligations at Closing. The obligations of the Investor to purchase the Shares and the Note at the Closing are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

5.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true and correct in all respects as of the Closing.

5.2 Performance. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before the Closing.

5.3 Compliance Certificate. The Chief Financial Officer of the Company shall deliver to the Investor at the Closing a certificate certifying that the conditions specified in Sections 5.1 and 5.2 have been fulfilled or satisfied.

5.4 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Notes and Warrants pursuant to this Agreement shall be obtained and effective as of the Closing.

5.5 Secretary's Certificate. The Secretary of the Company shall have delivered to the Investor at the Closing a certificate certifying with respect to (i) the Restated Certificate and the Certificate of Amendment, (ii) the Amended and Restated Bylaws of the Company, and (iii) resolutions of the Board of Directors of the Company approving the Agreement, the Note, the Security Agreement, and the Registration Rights Agreement (collectively, the "**Transaction Documents**"), and the transactions contemplated under the Transaction Documents.

5.6 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to Investor, and Investor (or its counsel) shall have received all such counterpart original and certified or other copies of such documents as reasonably requested. Such documents may include good standing certificates.

5.7 Security Agreement. The Security Agreement shall have been executed and delivered by the Company and the Investor.

5.8 Registration Rights Agreement. The Registration Rights Agreement shall have been executed and delivered by the Company and the Investor.

5.9. Merger. The Merger pursuant to the Merger Agreement shall have been consummated.

6. Conditions of the Company's Obligations at Closing. The obligations of the Company to sell the Shares and the Note to the Investor at the Initial Closing are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

6.1 Representations and Warranties. The representations and warranties of the Investor contained in Section 3 shall be true and correct in all respects as of such Closing.

6.2 Performance. The Investor shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by them on or before the Closing.

6.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares and the Note pursuant to this Agreement shall be obtained and effective as of the Closing.

6.4 Security Agreement. The Security Agreement shall have been executed and delivered by the Company and the Investor.

6.5 Registration Rights Agreement. The Registration Rights Agreement shall have been executed and delivered by the Company and the Investor.

7. Miscellaneous.

7.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations, warranties, covenants and agreements of the Company and the Investor contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the Investor or the Company.

7.2 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

7.3 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware excluding that body of law pertaining to conflict of law.

7.4 Counterparts; Facsimile. This Agreement may be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

7.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

7.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 7.6.

If notice is given to the Company, a copy shall also be sent to:

Ballard Spahr LLP
1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
Attn: Mary J. Mullany

7.7 No Finder's Fees. Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. The Investor agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Investor or any of its officers, employees, or representatives is responsible. The Company agrees to indemnify and hold harmless the Investor from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

7.8 Amendments and Waivers. Any term of this Agreement may be amended, terminated or waived only with the written consent of the Company and the Investor. Any amendment or waiver effected in accordance with this Section 7.8 shall be binding upon the Investor and each transferee of the Securities, each future holder of all such Securities, and the Company. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing; and shall be effective only to the extent specifically set forth in such writing.

7.9 Fees and Expenses. At the Closing, the Company shall pay the reasonable fees and expenses of Shumaker, Loop & Kendrick, LLP, the counsel for Investor, in an amount not to exceed, in the aggregate, $50,000.

7.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

7.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

7.12 Entire Agreement. This Agreement (including the Exhibits hereto) constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Common Stock and Note Purchase Agreement as of the date first written above.

COMPANY:

OPGEN, INC.

By: /s/ Timothy C. Dec
Name: Timothy C. Dec
Its: Chief Financial Officer

IN WITNESS WHEREOF, the parties have executed this Common Stock and Note Purchase Agreement as of the date first written above.

INVESTOR:

MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William J. Taranto
Name: William J. Taranto
Title: President

THE SECURITIES REPRESENTED BY THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

OPGEN, INC.
SENIOR SECURED PROMISSORY NOTE

Note No. SS-1
Amount: $1,000,000.00 Issue Date: July 14, 2015

1. **Principal Amount**. For value received, OpGen, Inc., a Delaware corporation (the "Company"), does hereby promise to pay to the order of Merck Global Health Innovation Fund, LLC or its assignee (the "Holder"), the principal sum of One Million and 00/100 Dollars ($1,000,000.00), plus interest accrued thereon, as hereinafter specified (collectively, the "Obligations") on the earliest to occur of (i) July 14, 2017 (the "Maturity Date") or (ii) an Event of Default (as defined below).

2. **Note Purchase Agreement**. This Note is issued pursuant to the Common Stock and Note Purchase Agreement, dated as of July 14, 2015, among the Company and the Holder (as the same may be amended from time to time, the "Purchase Agreement"), and is subject to the provisions thereof. Capitalized terms used but not defined herein have the meanings given to them in the Purchase Agreement.

3. **Definitions**. In addition to the other terms defined herein, the following terms shall have the following meanings ascribed to them:

3.1 "Bankruptcy Law" means Title 11, United States Code or any similar Federal or state law for the relief of debtors.

3.2 "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

4. **Interest**. The Company agrees to pay interest, from the date hereof on the unpaid principal amount, at a rate equal to eight percent (8%) per annum, compounded annually (the "Interest Rate"), until the principal amount and all interest accrued thereon are paid; provided that, upon the occurrence and during the continuation of an Event of Default, as defined in Section 7 below, the interest rate will be fifteen percent (15%) per annum. Interest shall be due and payable to the Holder on the Maturity Date. In no event shall the amount of interest paid or agreed to be paid to the Holder hereunder exceed the highest lawful rate permissible under any law which a court of competent jurisdiction may deem applicable hereto. In such event, the Interest Rate shall automatically be reduced to the maximum rate permitted by such law.

5. **Security Agreement**.

In order to secure the payment and performance of this Note the Company has granted the Holder a first priority security interest in the Collateral as set forth in that certain Security Agreement dated as of July 14, 2015, by and between the Company, the Holder, and the Holder's wholly owned subsidiary, AdvanDx, Inc., a Delaware corporation (as amended or restated from time to time, the "Security Agreement").

6. **Payment**.

6.1 Repayment. All payment of principal shall be due and payable in lawful money of the United States of America at the principal office of the Holder, or at such other place as the holder hereof may from time to time designate in writing to the Company, not later than 5:00 p.m., Eastern Time, on the Maturity Date. All payments shall be applied first to the payment of any fees or charges outstanding hereunder, second to interest accrued and unpaid hereunder, and thereafter to principal.

6.2 Prepayment. The Company may prepay, without penalty, any principal amount on this Note, in whole or in part, at any time. Any prepayment will be applied first to the payment of any fees or charges outstanding hereunder, second to interest accrued and unpaid hereunder, and thereafter to principal.

6.3 Ranking. All payments under this Note shall rank senior to all other existing and future indebtedness of the Company, excluding any capital and equipment leases.

7. **Events of Default**. The occurrence of any one or more of the following events shall constitute an "Event of Default" under this Note:

7.1 Payment Default. The Company shall fail to pay the outstanding principal or accrued interest amount due under this Note, or any portion thereof when due, whether on the Maturity Date, or on such earlier date as is required by Section 8, or otherwise;

7.2 Other Default. The Company shall materially breach any representation, warranty, covenant, agreement or obligation of the Company under this Note, the Security Agreement or the Purchase Agreement, and shall fail to cure such breach within ten (10) days after written notice thereof to the Company;

7.3 Other Indebtedness. The Company shall default under any other material indebtedness of the Company, and shall fail to cure such default within ten (10) days after written notice thereof to the Company;

7.4 Judgments. Any money judgment, writ or similar process shall be entered or filed against the Company or any of its property or other assets for more than $100,000, and shall remain unvacated, unbonded or unstayed for a period of thirty (30) days unless otherwise consented to by the Holder, which consent will not be unreasonably withheld; or

7.5 Bankruptcy, Etc. (a) The Company, pursuant to or within the meaning of any Bankruptcy Law, (i) admits in writing its inability to pay its debts generally as they become due, (ii) commences a voluntary case or proceeding under any Bankruptcy Law with respect to itself, (iii) consents to the entry of a judgment, decree or order for relief against it in an involuntary case or proceeding under any Bankruptcy Law, (iv) consents to the appointment of a custodian of it or for any part of its assets, (v) consents to or acquiesces in the institution of bankruptcy or insolvency proceedings against it, (vi) applies for, consents to or acquiesces in the appointment of or taking possession by a custodian of the Company or for any part of its assets, (vii) makes a general assignment for the benefit of its creditors, or (viii) takes any corporate act to authorize any of the foregoing; or (b) an involuntary petition is filed against the Company (unless such petition is dismissed or discharged within sixty (60) days) under any Bankruptcy Law now or hereafter in effect, or a custodian, receiver, trustee or assignee for the benefit of creditors (or other similar official) is appointed to take possession, custody or control of any property of the Company.

8. **Remedies**. Upon or at any time after the occurrence of an Event of Default specified in Sections 7.1, 7.2, 7.3 or 7.4 hereof, all Obligations under this Note shall, upon the demand of the Holder, become due and payable without further presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived. Upon the occurrence of an Event of Default specified in Section 7.5 hereof, all Obligations shall thereupon and concurrently therewith become due and payable without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived.

9. **Certain Negative Covenants**. So long as the Company shall have any obligation under this Note, the Company shall not without the Holder's written consent:

9.1 Distributions on Capital Stock. Pay, declare or set apart for such payment, any dividend or other distribution (whether in cash, property or other securities) on shares of capital stock other than dividends on shares of Common Stock solely in the form of additional shares of Common Stock or, directly or indirectly or through any subsidiary make any other payment or distribution in respect of its capital stock except for distributions pursuant to any shareholders' rights plan which is approved by a majority of the Company's disinterested directors.

9.2 Restriction on Stock Repurchases. Redeem, repurchase or otherwise acquire (whether for cash or in exchange for property or other securities or otherwise) in any one transaction or series of related transactions any shares of capital stock of the Company or any warrants, rights or options to purchase or acquire any such shares.

9.3 Borrowings. Create, incur, assume or suffer to exist any liability for borrowed money in excess of $50,000, except (a) borrowings in existence or committed on the date hereof and of which the Company has informed Holder in writing prior to the date hereof, (b) indebtedness to trade creditors incurred in the ordinary course of business consistent with past practices or (c) borrowings, the proceeds of which shall be used to repay this Note.

9.4 Sale of Assets. Sell, lease or otherwise dispose of any significant portion of its assets outside the ordinary course of business.

9.5 Advances and Loans. Lend money, give credit or make advances to any person, firm, joint venture or corporation, including, without limitation, officers, directors, employees, subsidiaries and affiliates of the Company, except loans, credits or advances in existence or committed on the date hereof and which the Company has informed Holder in writing prior to the date hereof.

9.6 Contingent Liabilities. Assume, guarantee, endorse, contingently agree to purchase or otherwise become liable upon the obligation of any person, firm, partnership, joint venture or corporation, except by the endorsement of negotiable instruments for deposit or collection and except assumptions, guarantees, endorsements and contingencies (a) in existence or committed on the date hereof and which the Company has informed Holder in writing prior to the date hereof, and (b) similar transactions in the ordinary course of business.

9.7 Limitation on Liens. Grant, or permit to be created, any lien other than the security interests created under the Security Agreement and any security interest which would constitute a Permitted Lien (as defined in the Security Agreement).

10. **Certain Affirmative Covenants**. So long as the Company shall have any obligation under this Note:

10.1 Payment of Taxes. The Company will promptly pay and discharge or cause to be paid and discharged, before the same shall become in default, all taxes and assessments imposed upon the Company or any of its subsidiaries or upon the income and profits of the Company or any of its subsidiaries, or upon any property, real, personal or mixed, belonging to the Company or any of its subsidiaries, or upon any part thereof by the United States or any State thereof, as well as all material claims for labor, materials and supplies which, if unpaid, would become a Lien upon such property or any part thereof; provided, however, that neither the Company nor any of its subsidiaries shall be required to pay and discharge or to cause to be paid and discharged any such tax, assessment, charge, levy or claim so long as both (i) the Company has established adequate reserves for such tax, assessment, charge, levy or claim and (ii) the Company or a subsidiary shall be contesting the validity thereof in good faith by appropriate proceedings.

10.2 Notice of Certain Events. The Company shall, immediately after it becomes aware of the occurrence of (i) any Event of Default (as hereinafter defined) or any event which, upon notice or lapse of time or both, would constitute such an Event of Default, or (ii) any action, suit or proceeding at law or in equity or by or before any governmental instrumentality or agency which could reasonably be expected to materially impair the right of the Company to carry on its business substantially as then conducted, or could reasonably be expected to have a material adverse effect on the properties, assets, financial condition, operating results or business of the Company and its subsidiaries taken as a whole, give notice to the holder of this Note, specifying the nature of such event.

10.3 Maintenance of Existence. The Company shall preserve, renew and maintain in full force and effect the corporate or organizational existence of the Company and its subsidiaries.

10.4 Maintenance of Property; Insurance. The Company shall:

(a) maintain and preserve all of its property useful and necessary in its business in good working order and condition, ordinary wear and tear excepted; and

(b) maintain insurance with respect to its property and business with financially sound and reputable insurance companies that are not Affiliates of the Borrower, in such amounts and covering such risks as are usually insured against by similar companies engaged in the same or a similar business.

10.5 Additional Collateral. With respect to any property acquired after the Closing Date by the Company or any of its subsidiaries, the Company shall promptly, and in any event within 30 days of acquiring such property:

(a) execute and deliver to the Holder such supplements or amendments to the Security Agreement or such other documents as the Holder deems necessary or advisable to grant to the Holder a security interest in such property; and

(b) take all actions necessary or advisable to grant to the Holder a perfected first priority security interest in such property, including the filing of UCC-1 financing statements in such jurisdictions as may be required by the Security Agreement or by law or as may be requested by the Holder.

11. **Waiver and Amendment**. The Company hereby waives demand for payment, presentment for payment, protest, notice of payment, notice of dishonor, notice of nonpayment, notice of acceleration of maturity and diligence in taking any action to collect sums owing hereunder. Any waiver by the Holder of a breach of any provision of this Note shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Note. The failure or delay of the Holder to insist upon strict adherence to any term of this Note on one or more occasions shall not be considered a waiver or deprive the Holder of the right thereafter to insist upon strict adherence to that term or any other term of this Note. Any waiver must be in writing. Any term of this Note may be amended and the observance of any term of this Note may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Company and the Holder. This Note may not be terminated or amended and the observance of any term of this Note may not be waived with respect to the Holder without the consent of the Holder. Any waiver or amendment effected in accordance with this section shall be binding upon the Company and the Holder.

12. **Governing Law**. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THE PURCHASE AGREEMENT, IN ALL RESPECTS, INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, THIS NOTE AND THE OBLIGATIONS ARISING HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF DELAWARE APPLICABLE TO OBLIGATIONS MADE AND PERFORMED IN THAT STATE, AND ANY APPLICABLE LAWS OF THE UNITED STATES OF AMERICA.

13. **Transfer**. This Note may be transferred or assigned by the Holder at any time and in any manner without the prior written consent of the Company, subject only to applicable securities laws. The Company may not transfer or assign this Note or any of its rights hereunder without the prior written consent of the Holder. The Holder shall promptly notify the Company of any transfer or assignment of this Note.

14. **Notices**. Notices hereunder shall be made as described in the Purchase Agreement.

15. **Stockholders, Officers and Directors Not Liable**. In no event shall any stockholder, officer or director of the Company be liable for any amounts due or payable pursuant to this Note. This Note is solely an obligation of the Company.

16. **Loss of Note**. Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction or mutilation of this Note or any Note exchanged for it, and indemnity satisfactory to the Company (in case of loss, theft or destruction) or surrender and cancellation of such Note (in the case of mutilation), the Company will make and deliver in lieu of such Note a new Note of like tenor.

17. **Waiver of Jury Trial**. THE COMPANY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY RELATING TO THIS NOTE, THE SECURITY AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY.

18. **Remedies; Expenses**. Upon the occurrence of any Event of Default and after any applicable cure period provided for herein, the Holder may, at its option, declare all indebtedness of principal and interest due and payable, whereupon this Note shall be immediately due and payable, and the Holder shall have and may exercise from time to time any and all rights and remedies available to it under any applicable law. The rights, remedies, powers and privileges herein provided are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law. The Company shall reimburse the Holder on demand for all of its reasonable out-of-pocket costs, expenses and fees (including reasonable expenses and fees of its legal counsel) incurred by the Holder in connection with the enforcement of the Holder's rights hereunder and under the Security Agreement.

[Signature page follows]

IN WITNESS WHEREOF, the Company has executed and delivered this Note as of the day and year first above written.

COMPANY:

OPGEN, INC.,
a Delaware corporation

By: /s/ Timothy C. Dec
Name: Timothy C. Dec
Title: Chief Financial Officer

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this "**Agreement**") is made as of July 14, 2015, by and among OpGen, Inc., a Delaware corporation (the "**Company**"), and each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**."

RECITALS

WHEREAS, the Company and one of the Investors, Merck Global Health Innovation, LLC, a Delaware limited liability company ("**Merck**") are parties to a certain Common Stock and Note Purchase Agreement of even date herewith pursuant to which the Investor will purchase from the Company certain shares of Common Stock of the Company and a senior secured promissory note of the Company;

WHEREAS, Merck and the other Investors have received shares of Common Stock of the Company in connection with the acquisition by the Company of AdvanDx; and

WHEREAS, the Company and the Investors have mutually agreed that, in connection with the Investors' ownership in the Company, the Investors would be granted certain registration rights with respect to the shares of Common Stock owned by the Investors.

NOW, THEREFORE, the parties to this Agreement further agree as follows:

Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "**Common Stock**" means shares of the Company's common stock, par value $0.01 per share.

1.3 "**Damages**" means any loss, damage, or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.5 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan or (ii) a registration relating to an SEC Rule 145 transaction.

1.6 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.7 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.8 "**GAAP**" means generally accepted accounting principles in the United States.

1.9 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.10 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.11"**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.12 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.13 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.14 "**Registrable Securities**" means (i) the Common Stock held by an Investor; and (ii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clause (i) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

1.15 "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.16 "**Restricted Securities**" means the securities of the Company required to bear the legend set forth in Section 2.12(b) hereof.

1.17 "**SEC**" means the Securities and Exchange Commission.

1.18 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.19 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.20 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.21 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 2.6.

Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registrations.

(a) If at any time after May 31, 2016, the Company receives a request from Holders of fifty percent (50%) of the Registrable Securities then outstanding that the Company file a Form S-3 (or, if Form S-3 is not available for use by the Company, then a Form S-1) registration statement with respect to all or at least fifty percent (50%) of the Registrable Securities (or such lesser amount as may be agreed to by the Company and the Holders), then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(b) If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $1 million (or such lesser amount as may be agreed to by the Company and the Holders), then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Company's Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, for a period of not more than sixty (60) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such sixty (60) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a) (i) during the period that is ninety (90) days after the effective date of a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two (2) registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b) (i) during the period that is ninety (90) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two (2) registrations pursuant to Section 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Section 2.1(d) until such time as (i) all Registrable Securities requested to be registered are so registered and (ii) the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration (for any reason other than as a result of a material adverse change to the Company) and forfeit their right to one demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Section 2.1(a), the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1(a), and the Company shall include such information in the Demand Notice. In this instance, the underwriter will be selected by the Holders, subject to the approval of the Company, which approval shall not be unreasonably withheld or delayed. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriters selected for such underwriting. Notwithstanding any other provision of this Section 2.3, if the Company and underwriters together advise the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder, or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the provision in this Section 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any underwriters participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; and fees and disbursements of counsel for the Company, and one counsel for the Holders in an amount not to exceed $5,000; shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration; Liquidated Damages. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2. In the event of a delay by the Company in filing a registration statement covering Registrable Securities as required by this Agreement, or in the event of a failure to maintain the effectiveness of any such registration statement as required by this Agreement, the Company shall pay to the Holders affected by such delay or failure cash, as liquidated damages and not as a penalty, in the amount of $10,000 per month (pro-rated for partial months) on a pro rata basis in proportion to the number of Registrable Securities held by such Holders, until such time as the delay or failure is cured. Such payments shall be made to each Holder in cash no later than five (5) business days after the end of each monthly period in which such liquidated damages accrue.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Sections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration.

2.10 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter(s), during the period commencing on the date of the final prospectus relating to the registration by the Company of shares of its Common Stock and ending on the date specified by the Company and the managing underwriter(s) (such period not to exceed ninety (90) days: (i) lend, 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, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering; or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.10 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.10 or that are necessary to give further effect thereto.

2.11 Restrictions on Transfer.

(a) The Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Common Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, no Holder may transfer the rights under this Agreement to any transferee of less than twenty-five percent (25%) of the Registrable Securities held by such Holder.

(b) Each certificate or instrument representing (i) the Registrable Securities, and (ii) any other securities issued in respect of the securities referenced in clause (i), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.12(c)) be stamped or otherwise imprinted with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Section 2.12. Each certificate or instrument evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Section 2.12(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.12 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.1 or Section 2.2 shall terminate when all of such Holder's Registrable Securities are eligible to be sold without restriction under SEC Rule 144 within any 90-day period.

2.13 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that (i) would provide to such holder the right to include securities in any registration or (ii) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder.

3. Miscellaneous.

3.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that acquires at least twenty-five percent (25%) of the Registrable Securities; provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

3.2 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware excluding that body of law pertaining to conflict of law.

3.3 Counterparts; Facsimile. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile or electronic mail (including pdf or any electronic signature) and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

3.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

3.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5.

If notice is given to the Company, a copy shall also be sent to:

Ballard Spahr LLP
1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
Attn: Mary J. Mullany

Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding; provided that the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

3.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

3.8 Entire Agreement. This Agreement constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

3.9 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

COMPANY:

OPGEN, INC.

By: /s/ Timothy C. Dec
Name: Timothy C. Dec
Title: Chief Financial Officer

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

INVESTORS:

MERCK GLOBAL HEALTH INNOVATION FUND, LLC

By: /s/ William J. Taranto
Name: William J. Taranto
Title: President

SLS INVEST AB

By: /s/ Hans Andreasson
Name: Hans Andreasson
Title: Investment Director

LD PENSIONS

By: /s/ Lars Wallberg
Name: Lars Wallberg
Title: Finansdirektor/CFO

By: /s/ Karin Korneliussen
Name: Karin Korneliussen
Title: Controller

/s/ Martin Fuchs
Martin Fuchs