

Ballard Spahr

1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
TEL 215.665.8500
FAX 215.864.8999
www.ballardspahr.com

Mary J. Mullany
Tel: 215.864.8631
Fax: 215.864.8999
mullany@ballardspahr.com

April 2, 2015

By Electronic Filing

United States Securities and Exchange Commission
100 F Street N.E.
Washington D.C. 20549
Attn: John Reynolds

Re: OpGen, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed March 20, 2015
File No. 333-202478

Ladies and Gentlemen:

We are providing this response letter on behalf of OpGen, Inc. (the "Company") with respect to the Staff's comment letter dated March 31, 2015, regarding the above referenced Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-202478), filed on March 20, 2015 (the "Form S-1/A1"). In this response letter we are describing, and in some cases including in the relevant response, the proposed changes that will be made to Amendment No. 2 to the Registration Statement ("Amendment No. 2"). For your convenience, the Staff's comments have been reproduced below, followed by the Company's response.

The Offering, page 7

1. We note your response to comment 1. We further note your disclosure on page 93 of your Form S-1/A1 that "upon the closing of this offering, each outstanding share of our Series A Preferred Stock, including those underlying the 2014 convertible notes and the 2015 convertible notes, will be converted into one share of common stock, or an aggregate of 6,999,864 shares of common stock." To the extent that the 2015 convertible notes will automatically be converted into shares of common stock upon the closing of the offering or it is probable that these notes will be converted, please further explain to us why you believe that pro forma financial information for the change in capitalization resulting from the conversion would not be material to investors. To the extent applicable, also tell us how you considered providing pro forma information for any automatic or probable exercise of the detachable stock purchase warrants issued with the 2015 convertible notes upon the closing of the offering.

RESPONSE: The 2015 convertible notes are not automatically convertible into equity upon the closing of the offering, at the election of the Company or at the election of less than all of the holders of the notes. Instead, the holder of each 2015 convertible note can elect to convert such note at any time. If the holder elects to convert a note prior to the closing of the offering, the note is convertible into 1.25 shares of Series A Preferred Stock for each \$1.00 converted. If the holder waits until after the closing of the offering, the note will then be convertible into one share of common stock for each \$1.00 converted. Finally, the holder can elect to hold the note as a debt instrument and be repaid at maturity, which is February 17, 2016.

We respectfully advise the Staff that the Company thinks it is probable that the holders of the 2015 convertible notes will elect to convert such notes into shares of Series A Preferred Stock prior to the closing of the offering. If that occurs, then such shares of Series A Preferred Stock will automatically be converted, upon the closing of the offering, into shares of common stock, at a conversion rate of one share of common stock for each share of Series A Preferred Stock. Assuming all 2015 convertible notes are so converted by the holders, the holders will receive an aggregate of 1,875,000 shares of Series A Preferred Stock, which will convert into 1,875,000 shares of common stock upon the closing of the offering.

Because the 2015 convertible notes were not issued prior to December 31, 2014, the Company believes that including the common stock issuable upon conversion of such notes or exercise of the related detachable stock purchase warrants in the December 31, 2014 pro forma financial information would be confusing or potentially misleading to investors. For example, such addition would artificially lower the net loss per common share for 2014. In addition, the proceeds from the issuance of such notes are not included in the 2014 financial information. Finally, the Company has not yet determined the fair value of the warrants issued with the 2015 convertible notes, determined the classification of such warrants as equity or as a liability, and has not determined the intrinsic value of the beneficial conversion feature. The Company believes that presenting the number of shares issuable upon conversion of the 2015 convertible notes without being able to accurately reflect the appropriate changes to all of the information contained in the pro forma information presents an incomplete picture of the impact of the issuance of the 2015 convertible notes. The Company has added further disclosure in Note 15 of the Notes to the Financial Statements (see the response to comment 12 below) to highlight some of the financial information impacted by the 2015 convertible notes.

We advise the Staff that the detachable stock purchase warrants issued in the 2015 convertible notes financing do not become exercisable until the six month anniversary of the closing of the initial public offering. In addition, such warrants have no automatic conversion features. We will add to Amendment No. 2 a new section of the prospectus titled "Description of Indebtedness." That separate section is set forth on Exhibit A to this response letter. We have included disclosure related to the warrants in that new section of the prospectus.

2. We note the new disclosure on pages 7 and 90 of your Form S-1/A1 that states “each of such existing stockholders who are holders of our outstanding secured demand notes may elect to exchange such demand notes for shares of common stock in this offering.” We further note the disclosure on page 7 that states “our estimated proceeds from this offering may be reduced by up to \$1.5 million to the extent that holders of our outstanding secured demand notes currently outstanding elect to exchange such notes for shares of common stock in this offering.” Please further explain to us and revise to disclose the significant terms of the outstanding demand notes, including the exchange feature and exchange ratio. To the extent it is probable that the demand notes will be exchanged for common stock in the offering, also tell us how you considered including pro forma financial information for the change in capitalization resulting from the exchange.

RESPONSE: We will revise the referenced disclosure in Amendment No. 2 to clarify the rights of the holders of the secured demand notes, as set forth below.

“We estimate that we will receive net proceeds from this offering of approximately \$ million, or approximately \$ million if the underwriters exercise their option to purchase additional shares in full, at an assumed public offering price of \$ per share, after deducting the underwriting discount, commissions and estimated offering expenses. See “Underwriting” for additional information. **Our receipt of cash proceeds from this offering may be reduced by up to \$2.0 million to the extent that the holders of our currently outstanding secured demand notes elect to tender such notes as full or partial payment for shares of common stock purchased in this offering.** We expect to use the net proceeds from this offering to fund increased sales and marketing activities for our Acuitas MDRO test products and Lighthouse MDRO Management System, research and development activities to complete the development of our Lighthouse MDRO Management System and future product development, for general and administrative expenses and for working capital purposes. See “Use of Proceeds” for additional information.”

“jVen Capital, LLC, entities affiliated with Versant Ventures, Harris & Harris Group, Inc., entities affiliated with CHL Medical Partners and entities affiliated with Mason Wells, each of which are existing stockholders, have indicated an interest in purchasing up to an aggregate of shares of our common stock in this offering at the initial public offering price. Because these indications of interest are not binding agreements or commitments to purchase, these existing stockholders may elect not to purchase shares in this offering or the underwriters may elect not to sell any shares in this offering to such stockholders. **Each of such existing stockholders who are holders of currently outstanding secured demand notes may elect to tender such demand notes as full or partial payment for shares of common stock purchased in this offering.** The underwriters will receive a reduced underwriting discount of 5%, or \$per share, in connection with shares of our common stock purchased by any existing stockholders in this offering. Any shares purchased by such stockholders will be subject to lock-up restrictions described in the section entitled “Shares Eligible for Future Sale.””

We advise the Staff that each holder of our outstanding secured demand notes is an existing investor who or which has indicated an interest in participating in the initial public offering, as noted on the cover of the prospectus. The underwriter has agreed that the holders of the secured demand notes who participate in the offering may tender the outstanding principal and interest of such demand notes to the Company as full or partial payment for the shares purchased in the offering at the initial public offering price. We further advise the Staff that an additional secured demand note with identical terms was issued on March 30, 2015 in the principal amount of \$500,000; we will add the disclosure about that new secured demand note, including as set forth in Exhibit A, to Amendment No. 2. If we assume that all holders of secured demand notes will tender the principal, but not the interest of such demand notes as part of the payment for shares purchased in the initial public offering, that means we will not receive cash proceeds in the amount of \$2.0 million, but will retired outstanding debt obligations in such amount.

If a holder of a secured demand note does not participate in the initial public offering, or does not tender its secured demand note as payment for some or all of the shares subscribed for in the offering, such secured demand note would remain outstanding and could be called for repayment by the holder at any time after April 30, 2015.

Business, page 49

3. We note your response to prior comment 4 and revised disclosure about demonstrating financial benefits to the hospitals in your pilot program. Please revise to identify and describe operational impediments that materially affect your transition to a revenue-generating model. For example, it is unclear if patient consent is necessary for hospitals to use your testing and, if so, whether failure to obtain consent of a sufficient number or percentage of patients would present a material risk to the adoption of the Acuitas MDRO Gene Test by hospitals in states where you operate.

RESPONSE: The Company does not believe that patient consent is necessary for hospitals to use our test products for surveillance programs or for diagnostic purposes. Our Acuitas MDRO gene test products can be performed based on peri-anal patient samples using commercially available specimen swab containers. We anticipate that upon adoption of our surveillance program, the procurement of the specimen will occur in the admission process or through routinely scheduled ICU screening procedures when it is typical for a number of invasive and non-invasive tests to be performed, such as blood drawing, radiology procedures, etc. For example, MRSA screening is routinely performed in many hospitals today both for pre-surgical admission and ICU surveillance; and the Company believes that no informed consent is required for such surveillance testing.

In response to the Staff's comment, we will revise the paragraph that is currently the first full paragraph on page 58 of the Form S-1/A1 to add the following paragraph to the description of our "Commercialization Strategy and Plans."

"The potential impediments we foresee to more rapid adoption of the use of our products and services are related to the changes that may need to occur to a hospital's standard operating procedures, and the reluctance of hospital administration to spend funds that will not be immediately and directly reimbursed by third party payors. We believe we have compelling evidence to support the proposition that adoption of a surveillance program, using our products, for at-risk patients, such as those admitted to intensive care units, trauma patients, transplant or other patients with compromised immune systems, or those patients admitted from long-term care facilities, will lead to (1) more rapid identification of patients who are colonized with MDROs but not yet actively infected, (2) rapid and accurate identification of the MDRO gene present, and diagnosis of the underlying infection, (3) better utilization of isolation and other infection control resources within the hospital, (4) identification of potential outbreaks; (5) reduction in patient infections; and (6) restoration of reimbursement from government payors and reduced risk of incurring future penalties associated with high infection rates. We anticipate that we will need to present the benefits of this program to multiple executives within the hospital setting, from infection control physicians, laboratory personnel, finance department executives and other healthcare providers. We also anticipate that there will be some normal resistance to adding another task to the patient admission process, although collection of the specimen needed to perform our Acuitas MDRO test products is not technically difficult or time consuming."

Description of Capital Stock, page 93

Current Certificate of Incorporation, page 93

4. We note you disclose here that an aggregate of 6,999,864 shares of common stock will be outstanding assuming the conversion of Series A Preferred Stock, the 2014 convertible notes and 2015 convertible notes. Please tell us if this includes all of the 1,875,000 common shares reserved for issuance underlying the 2015 notes as disclosed elsewhere in the filing. If it does not include all of these reserved shares please tell us why.

RESPONSE: The aggregate of 6,999,864 shares of common stock assumes the conversion of the 2015 convertible notes into common stock after the closing of the offering, in addition to the conversion of the Series A Preferred Stock and the 2014 convertible notes at the offering. Because the Company assumes that the holders of the 2015 convertible notes will convert such notes prior to the closing of the offering, thereby converting the notes into shares of Series A Preferred Stock, we will revise the disclosure throughout Amendment No. 2 to reflect that an aggregate of 7,374,864 shares of common stock will be added to the outstanding common stock if the Series A Preferred Stock, 2014 convertible notes and 2015 convertible notes are all converted prior to the closing of the offering.

Notes to Financial Statements, page F-7

Note 6 – Redeemable Convertible Preferred Stock, page F-16

5. We note in your response to comment 6 that the initial effective conversion price was significantly in excess of the fair value of the Company's common stock as determined by an independent valuation as of both April 1, 2014 (Series A Preferred Stock) and December 1, 2014 (2014 Convertible Notes). Please tell us the fair value of the Company's common stock on each date. Also tell us the fair value of the Company's common stock upon issuance of the 2015 Convertible Notes and tell us whether this was determined by the Company or an independent valuation.

RESPONSE: The Company issued shares of Series A Preferred Stock in February 2014 and April 2014 for an initial purchase price of \$1.00 per share of the Series A Preferred Stock. The initial stated conversion ratio allowed the holders to convert one share of Series A Preferred Stock into one share of common stock (i.e., on a one-for-one basis), resulting in an initial conversion price of \$1.00 per share of common stock. The Company believes that this \$1.00 initial conversion price (which, as previously discussed, is also the initial effective conversion price) exceeds the fair value of the underlying common stock on the issuance dates for several reasons, including:

- The Series A Preferred Stock contains unique rights and preferences not inherent in the Company's common stock, including among other things (i) 8% dividend rights, (ii) liquidation rights and preferences at two-times the original issuance price of \$1.00 per share, (iii) the right to vote with the holders of common stock, on an as-converted basis, on all matters presented to the common stock holders, plus a separate class vote for matters affecting the Series A Preferred Stock; (iv) conversion rights, (v) redemption rights, and (vi) board representation rights. The Company believes that the presence of these unique rights and preferences are reflected in the original \$1.00 per share issuance price of the Series A Preferred Stock and therefore indicate that the fair value of the common stock is lower than \$1.00 per share paid for the Series A Preferred Stock.
 - The Company obtained an independent valuation of its common stock as of April 1, 2014, and that value was determined to be \$0.05 per share.
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- The Company obtained an independent valuation of its common stock as of December 1, 2014, and that value was determined to be \$0.61 per share.

As described further in response to comment 6 below, the Company has not yet determined the fair value of its common stock as of the dates of the issuance of the 2015 convertible notes.

6. We note your response to comment 6, and it appears to us that a contingent beneficial conversion feature will be recognized when the triggering event forcing conversion of the 2014 convertible notes occurs. We further note that the Company believes a beneficial conversion feature likely exists with respect to the 2015 convertible notes. Please revise your Form S-1 to provide clear disclosure regarding these beneficial conversion features. To the extent that the closing of the offering will result in the recognition of the contingent beneficial conversion feature on the 2014 convertible notes, please tell us how you considered providing pro forma information for the effects.

RESPONSE: As the Company previously stated in its response to the Staff's comment 6 in the March 3, 2015 comment letter, the Company believes that a contingent beneficial conversion feature will be measured and recognized if a triggering event forcing conversion of the 2014 convertible notes into shares of a "Qualified Financing" (as defined in the 2014 convertible notes) were to occur. However, as also previously stated, the 2014 convertible notes can be converted, at the option of the holders of at least 70% of the 2014 convertible notes, into shares of Series A Preferred Stock, and if that conversion event occurs no contingent beneficial conversion feature will be generated or recognized. On March 26, 2015, the Company obtained the consent of the requisite holders of the 2014 convertible notes to convert all of the outstanding 2014 convertible notes into shares of Series A Preferred Stock immediately prior to the initial public offering. As such, the Company believes that it properly presented the pro forma financial information excluding the impact of any contingent beneficial conversion feature because a charge for a contingent beneficial conversion feature will not be generated or recognized.

The Company will revise Amendment No. 2 to include the following sentence as the second to last sentence of the first full paragraph after the table in Note 7 of the Notes to the Financial Statements on page F-19 of the Form S-1/A1:

"If the 2014 convertible notes convert into shares of a defined Qualified Financing, then in the period in which that financing occurs, the Company will recognize, as a charge to current period earnings, a contingent beneficial conversion feature generated by such financing, as measured by the intrinsic value of the revised conversion option based on the terms of the financing."

Also as stated in the Company's earlier response to comment 6, the Company is still assessing the appropriate accounting treatment for the 2015 convertible notes, including whether a beneficial conversion feature exists with respect to the 2015 convertible notes. However, as of the date of this letter, the Company believes that the "effective conversion price" of the 2015 convertible notes (calculated after giving effect to the discount created by any fair value allocated to the detachable warrants and any other embedded features that may require bifurcation and separate accounting, including beneficial conversion feature) is likely to be less than the fair value of the underlying securities at the time of issuance of each tranche of the 2015 convertible notes and, as a result, the Company initially believes that a beneficial conversion feature likely exists with respect to the 2015 convertible notes.

The Company will revise, in Amendment No. 2, the disclosure in its subsequent events footnote (Note 15) on page F-27 of the Form S-1/A1 to more clearly describe the financial information impacted by the 2015 convertible notes. See the Company's response to the Staff's comment 12 below.

Note 8 – Shares and Share-Based Compensation, page F-20

Stock Options, page F-20

7. We note in your response to comment 7 that the award recipients were not made aware of the key terms of the pending award on the October 23, 2014 board grant date. Please advise us of the following as related to the October 23, 2014 stock option grants:
- Please tell us when the recipients were made aware of the key terms and conditions of the awards and whether this was within a relatively short time period from October 23, 2014. Refer to ASC 718-10-25-5(b).
 - To the extent that certain key terms and conditions of the awards were communicated on different dates, please tell us each communication date and the key terms and conditions communicated on each date.
 - Describe the company's customary practices for communicating award terms to a recipient and tell us if the communications related to the October 23, 2014 awards differed in any way from the company's customary communication practices.

RESPONSE: We advise the Staff that the recipients were made aware of the terms and conditions of the awards in February 2015, following the board approval of the valuation report in February 2015. The Company's customary practice of communicating stock option awards, all of which are approved by the board, is inform each recipient of his or her award by providing an award agreement containing the terms and conditions of such award. The communications regarding the stock option awards discussed in this comment were made in February 2015 once the board had received and approved the valuation report. The process used was substantially similar to the Company's past practices.

8. We note your references to “board grant date” and “accounting grant date” in your response to comment 7. We further note your statement that since the stock price was not known until February 5, 2015 when the valuation was finalized and approved, February 5, 2015 was determined to be the “accounting grant date.” Please advise us of the following as related to the establishment of the grant date for the October 23, 2014 stock option grants:
- Further explain to us your use of “board grant date” and “accounting grant date” and tell us how either of these relate to the ASC 718-10-20 definition of “grant date” for purposes of accounting for stock based compensation.
 - Further explain to us why you believe that the finalization of the strike price is a requirement to establish a grant date, as defined in ASC 718-10-20.
 - Confirm our understanding that the Company became contingently obligated to issue the equity instruments when granted by the Board on October 23, 2014, or tell us the date that the Company became contingently obligated.
 - Confirm our understanding that on October 23, 2014 the employees began to benefit from, or be adversely affected by, subsequent changes in the price of the Company’s equity shares or tell us the date that the employees began to be effected by changes in share price.

RESPONSE: With respect to the “board grant date,” we advise the Staff that such reference refers to the actions taken by the Company’s Board of Directors (the “Board”) at its regularly scheduled Board meeting held on October 23, 2014. At such meeting, the Board established the following terms of the stock option awards: (1) the identification of the eligible participants receiving awards; (2) the number of shares underlying stock options awarded to the participants selected; (3) the vesting schedule for each stock option; (4) the ten-year term of each of the stock options; and (5) the applicability of the terms of the Company’s equity incentive plan to such stock options. The Board meeting minutes reflect that the 409A valuation study commissioned in September 2014 had not yet been received, so the determination of the exercise price for the stock options would be approved by the Board when such valuation report was obtained. For reasons beyond the control of the Company, and despite repeated attempts to procure the valuation report, the report was not received by the Company until January 28, 2015. Therefore, the exercise price for the stock options was not determined and approved by the Board until February 5, 2015. The Company did not use the term “board grant date” in relation to the ASC 718-10-20 definition of “grant date” for purposes of accounting for stock based compensation.

The Company's use of the term "accounting grant date" in the previous response to the Staff's comment 7 of March 3, 2015, does relate to the ASC 718-10-20 definition of "grant date" for purposes of accounting for stock-based compensation. For the remainder of this response, the accounting grant date as determined pursuant to the guidance contained in ASC 718-10-20 is referred to as the "grant date." ASC 718-10-20 defines grant date as:

"The date at which an employer and an employee reach a mutual understanding of the key terms and conditions of a share-based payment award. The employer becomes contingently obligated on the grant date to issue equity instruments or transfer assets to an employee who renders the requisite service. Awards made under an arrangement that is subject to shareholder approval are not deemed to be granted until that approval is obtained unless approval is essentially a formality (or perfunctory), for example, if management and the members of the board of directors control enough votes to approve the arrangement. Similarly, individual awards that are subject to approval by the board of directors, management, or both are not deemed to be granted until all such approvals are obtained. The grant date for an award of equity instruments is the date that an employee begins to benefit from, or be adversely affected by, subsequent changes in the price of the employer's equity shares. Paragraph 718-10-25-5 provides guidance on determining the grant date. See Service Inception Date."

The Company has determined that a grant date pursuant to the guidance contained in ASC 718-10-20 did not occur until February 5, 2015 because "individual awards that are subject to approval by the board of directors, management, or both, are not deemed granted until all such approvals are obtained." The finalization and approval of the independent valuation was a condition for Board approval, and without such Board approval ASC 718-10-20 states clearly that there cannot be a grant date. The Board approved such valuation report on February 5, 2015 and, as such, the Company became contingently obligated to issue the equity instruments on February 5, 2015.

The Company has determined that the recipients began to benefit from, or be adversely affected by, subsequent changes in the price of the Company's equity shares on the grant date of February 5, 2015 pursuant to the guidance contained in ASC 718-10-20. Until such time, the employees did not have an understanding of the terms and conditions of the awards. ASC 718-10-55-82 clearly provides that recipients cannot begin to benefit from, or be adversely affected by, subsequent changes in the price of the employer's equity shares until they have an understanding of the terms and can assess their financial exposure. ASC 718-10-55-82 states (emphasis added):

“A mutual understanding of the key terms and conditions means that there is sufficient basis for both the employer and the employee to understand the nature of the relationship established by the award, including both the compensatory relationship and the equity relationship subsequent to the date of grant. The grant date for an award will be the date that an employee begins to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares. In order to assess that financial exposure, the employer and employee must agree to the terms; that is, there must be a mutual understanding. Awards made under an arrangement that is subject to shareholder approval are not deemed to be granted until that approval is obtained unless approval is essentially a formality (or perfunctory). Additionally, to have a grant date for an award to an employee, the recipient of that award must meet the definition of an employee.”

Because the terms and conditions of the awards were not communicated before February 2015, the recipients could not assess their financial exposure and therefore could not begin to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares, until such time.

9. We note in your response to comment 7 that the service inception date for the October 23, 2014 grant did not precede its accounting grant date because all the criteria in ASC 718-10-55-108 were not met. Please provide us with your detailed analysis used to arrive at this conclusion.

RESPONSE: The Company determined that it should not recognize compensation expense for the October 23, 2014 awards prior to the grant date pursuant to the guidance contained in ASC 718-10-20. ASC 718 defines “service inception date” as:

“The date at which the requisite service period begins. The service inception date usually is the grant date, but the service inception date may differ from the grant date.”

Paragraph 718-10-35-6 further states:

“35-6 The service inception date is the beginning of the requisite service period. If the service inception date precedes the grant date (see paragraph 718-10-55-108), accrual of compensation cost for periods before the grant date shall be based on the fair value of the award at the reporting date. In the period in which the grant date occurs, cumulative compensation cost shall be adjusted to reflect the cumulative effect of measuring compensation cost based on fair value at the grant date rather than the fair value previously used at the service inception date (or any subsequent reporting date). Example 6 (see paragraph 718-10-55-107) illustrates the concept of service inception date and how it is to be applied.”

Example 6 in ASC 718-10-55-107 and 55-108 goes on to provide further guidance on making this determination as follows (emphasis added):

“Example 6: Service Inception Date and Grant Date

55-107 The following Example illustrates the guidance in paragraph 718-10-35-6.

55-108 This Topic distinguishes between service inception date and grant date. The service inception date is the date at which the requisite service period begins. The service inception date usually is the grant date, but the service inception date precedes the grant date if all of the following criteria are met:

- a. An award is authorized. (Compensation cost would not be recognized before receiving all necessary approvals unless approval is essentially a formality [or perfunctory].)
- b. Service begins before a mutual understanding of the key terms and conditions of a share-based payment award is reached.
- c. Either of the following conditions applies:
 1. The award’s terms do not include a substantive future requisite service condition that exists at the grant date (see paragraph 718-10-55-113 for an example illustrating that condition).
 2. The award contains a market or performance condition that if not satisfied during the service period preceding the grant date and following the inception of the arrangement results in forfeiture of the award (see paragraph 718-10-55-114 for an example illustrating that condition).”

ASC 718 provides several examples of the application of the determination of “service inception date” as follows:

“55-111 If necessary board approval of the award described in the preceding paragraph was obtained on August 5, 20X5, two months after substantive employment begins (June 2, 20X5), both the service inception date and the grant date would be August 5, 20X5, as that is the date when all necessary authorizations were obtained. If the market price of Entity T’s stock was \$38 per share on August 5, 20X5, the grant-date fair value of the share award would be \$380,000 (10,000 × \$38). Additionally, Entity T would not recognize compensation cost for the shares for the period between June 2, 20X5, and August 4, 20X5, neither during that period nor cumulatively on August 5, 20X5, when both the service inception date and the grant date occur. This is consistent with the definition of requisite service period, which states that if an award requires future service for vesting, the entity cannot define a prior period as the requisite service period. Future service in this context represents the service to be rendered beginning as of the service inception date.”

The Company determined that the “service inception date” for the October 23, 2014 actions did not precede its grant date pursuant to the guidance contained in ASC 718-10-20 because all the criteria in ASC 718-10-35-55-108 (namely, criteria (a) and criteria (c)) were not met. As a result, the Company will begin recognizing stock-based compensation expense on February 5, 2015, or the grant date pursuant to the guidance contained in ASC 718-10-20, using the estimated fair value of the awards as of that date.

10. Given the Company’s relevant facts and circumstances, please tell us how you considered ASC 718-10-55-83 in your determination of the grant date under ASC 718. In this regard, it appears that the award recipients may have had a sufficient basis to understand both the compensatory and equity relationship established by the award during the period from October 23, 2014 to February 5, 2015 when the exercise price was being finalized.

RESPONSE: As discussed in the Company’s response to the Staff’s comment 8 above, the Company has determined that a grant date pursuant to the guidance contained in ASC 718-10-20 did not occur until February 5, 2015, when all necessary Board approvals were obtained with the approval of the valuation report. The finalization and Board approval of the independent valuation was a condition for completion of the awards, and without such Board approval ASC 718-10-20 states clearly that there cannot be a grant date.

Additionally, as noted above, the Company has determined that the recipients began to benefit from, or be adversely affected by, subsequent changes in the price of the Company’s equity shares on the grant date pursuant to the guidance contained in ASC 718-10-20, which was February 5, 2015. Until such time, the employees did not have an understanding of the terms and conditions of the awards. ASC 718-10-55-82 clearly provides that recipients cannot begin to benefit from, or be adversely affected by, subsequent changes in the price of the employer’s equity shares until they have an understanding of the terms and can assess their financial exposure.

ASC 718-10-55-83 provides guidance to assist in the determination of a grant date, specifically as to when a recipient begins to benefit from, or be adversely affected by, subsequent changes in the price of the Company’s equity shares. ASC 718-10-55-83 states:

“The determination of the grant date shall be based on the relevant facts and circumstances. For instance, a look-back share option may be granted with an exercise price equal to the lower of the current share price or the share price one year hence. The ultimate exercise price is not known at the date of grant, but it cannot be greater than the current share price. In this case, the relationship between the exercise price and the current share price provides a sufficient basis to understand both the compensatory and equity relationship established by the award; the recipient begins to benefit from subsequent changes in the price of the employer’s equity shares. However, if the award’s terms call for the exercise price to be set equal to the share price one year hence, the recipient does not begin to benefit from, or be adversely affected by, changes in the price of the employer’s equity shares until then. Therefore, grant date would not occur until one year hence. Awards of share options whose exercise price is determined solely by reference to a future share price generally would not provide a sufficient basis to understand the nature of the compensatory and equity relationships established by the award until the exercise price is known.”

The Company has determined, after assessing all the relevant facts and circumstances as contemplated by ASC 718-10-55-83, because the Board did not complete its authorization and approvals of the awards until February 5, 2015, and given that the recipient were unable to assess their financial exposure because the terms and conditions of the awards were not communicated to them until February 2015, that the grant date pursuant to the guidance contained in ASC 718-10-20 was February 5, 2015.

11. We note in your response to comment 7 that there was no accounting grant date on October 23, 2014 because the strike price was not known and the recipients were not made aware of the key terms of the pending award (i.e. the employer and employees did not have a mutual understanding of the key terms and conditions of the arrangement). Given your current status as a nonpublic company, please tell us how you considered the ASC 718-10-25-5(b) exception to the application of “mutual understanding” in your determination of whether a grant date occurred on October 23, 2014. In this regard, it would appear reasonable for it to take a nonpublic entity a relatively short time period in order to obtain an independent valuation of its common stock for purposes of establishing an exercise price.

RESPONSE: The Company considered the guidance contained in ASC 718-10-25-5(b) in determining if there was a mutual understanding of the key terms and conditions of the arrangement. ASC 718-10-25-5(b) states, in part (emphasis added):

“25-5 As a practical accommodation, in determining the grant date of an award subject to this Topic, assuming all other criteria in the grant date definition have been met, a mutual understanding of the key terms and conditions of an award to an individual employee shall be presumed to exist at the date the award is approved in accordance with the relevant corporate governance requirements (that is, by the Board or management with the relevant authority) if both of the following conditions are met:

- a. The award is a unilateral grant and, therefore, the recipient does not have the ability to negotiate the key terms and conditions of the award with the employer.
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b. The key terms and conditions of the award are expected to be communicated to an individual recipient within a relatively short time period from the date of approval. A relatively short time period is that period in which an entity could reasonably complete all actions necessary to communicate the awards to the recipients in accordance with the entity's customary human resource practices."

The Company's awards are not unilateral, in that the recipient is required to review the terms and conditions and affirmatively agree to them. Also, although the reason for the delay was beyond the Company's control, the Company has determined that four months - from the October 23, 2014 board action until February 2015 - does not fit within the "relatively short time period" contemplated by ASC 718-10-25-5(b) (note that historically, the Company has communicated the terms and conditions of the grants within a few weeks of board action). Although not authoritative, the Company considered PricewaterhouseCoopers' guidance on this included (emphasis added):

"We believe that "a relatively short time period" should generally be measured in days or weeks, not months. We further believe that the reference to an entity's "customary human resource practices" does not imply that a company's historical practices, by default, would qualify as a relatively short time period. Companies should consider their individual facts and circumstances when analyzing what is "a relatively short time period," including the method of communication (e.g., in person or via e-mail) and the number and geographical location of employees receiving awards."

Note 15 – Subsequent Events, page F-27

12. Please revise to clearly describe the significant terms of the 2015 convertible notes, including the conversion feature terms and any automatic conversion upon closing of the offering. To the extent applicable, also clearly describe and quantify any beneficial conversion features resulting from the 2015 convertible notes.

RESPONSE: The Company will revise the disclosure regarding the 2015 convertible notes in footnote 15 in Amendment No. 2, as follows:

"In February and March 2015, the Company issued to existing investors 8% secured convertible notes (the "2015 convertible notes"), in an aggregate principal amount of \$1.2 million that are convertible into shares of either common stock, if the public offering contemplated by this prospectus is consummated, or 1.5 million. The 2015 convertible notes are pre-payable by the Company without penalty at any time following the three-month anniversary of an initial public offering; provided that before the six-month anniversary, the 2015 convertible notes can only be prepaid out of newly issued capital subsequent to the initial public offering, and are puttable by the holder to the Company in the event of a defined default. The 2015 convertible notes are each convertible, at the election of the holder, into shares of Series A Preferred Stock, if no public offering has occurred. The 2015 convertible notes were issued pursuant to a Notes Purchase Agreement, dated as of February 11, 2015. Following the initial closing, the Company issued an additional \$0.3 million of 2015 convertible notes, on the same terms, as a participation offering to existing investors in the Company who are party to the Company's Third Amended and Restated Investors' Rights Agreement, as amended, at a conversion rate of 1.25 shares of Preferred Stock for each \$1.00 converted, if the conversion occurs prior to closing of an initial public offering, or into shares of common stock, at a conversion rate of one share of common stock for each \$1.00 converted, if the conversion occurs after the closing of an initial public offering. The 2015 convertible note holders were also issued received detachable stock purchase warrants, 225,011 in the aggregate, exercisable for 225,011 shares of common stock at 110% of the initial public offering price and exercisable only if the offering contemplated by the prospectus in which these Notes are included is consummated. There was no firm commitment on the part of any investor to participate in the 2015 convertible notes, and then exercisable beginning on the six month anniversary of the closing of the offering. In conjunction with the 2015 convertible notes offering, the Company amended its Ninth Amended and Restated Certificate of Incorporation to increase the number of authorized shares of its common stock to 10.0 million and its preferred stock to 7.5 million.

The Company has not yet determined the financial statement accounting treatment for the 2015 convertible notes and detachable stock purchase warrants. However, because a portion of the gross proceeds will be allocated to the 2015 convertible notes and a portion to the warrants, it is likely that the Company will recognize and allocate value to an initial beneficial conversion feature, calculated as the intrinsic value of the embedded conversion option as of the issuance dates. Additionally, value may have to be allocated to other embedded features, including the Company's prepayment right and the holders' default put right, among other features. As a result, the Company expects the effective interest rate to be recognized over the debt term to exceed the coupon rate of 8%, and some of the embedded features may qualify for derivative liability treatment requiring periodic mark-to-market calculations that impact net income (loss). Finally, the Company may also recognize contingent beneficial conversion feature in the period when the initial public offering is consummated, as a charge to earnings measured by the intrinsic value of the revised conversion option based on the terms of the financing."

C. Eric Winzer, the CFO of the Company (240-813-1273) or Mary Mullany at Ballard Spahr LLP (215-864-8631) are available to answer questions you may have about our responses.

Very truly yours,

/s/ Mary J. Mullany

Mary J. Mullany

MJM/seh

cc: Evan Jones
C. Eric Winzer
Hillary Daniels
John Archfield
James Lopez
Brian McAllister

DESCRIPTION OF INDEBTEDNESS

We have the following indebtedness outstanding as of the date of this prospectus:

2014 Convertible Notes. In July through September 2014, we issued secured promissory notes with an aggregate principal amount of \$1.5 million. The 2014 convertible notes are convertible into shares of the Company's Series A Preferred Stock, with a conversion rate of one share of Series A Preferred Stock for each \$1.00 principal amount of the 2014 convertible notes. The 2014 convertible notes were issued to existing investors of the Company who were signatory to the Company's Third Amended and Restated Investors' Rights Agreement, as amended, or the Investors' Rights Agreement. Under the Investors' Rights Agreement, the investors signatory thereto have the right to participate in new issuances of our securities, such as the 2014 convertible notes, to maintain their percentage ownership of the Company prior to the initial public offering. The 2014 convertible notes may be automatically converted into shares of Series A Preferred Stock upon the consent of the holders of at least 70% of the aggregate principal amount of the notes.

2014 Demand Notes. In October 2014, the Board approved up to \$2.0 million of bridge funding to support our operations while we pursued an initial public offering. The bridge funding consists of secured demand notes with an interest rate of 8% per annum, a first priority security interest in the assets of the Company, and a term of approximately 4 months before the holder can demand payment. We issued an aggregate of \$1.5 million of these 2014 demand notes between October and December 2014. An additional demand note with a principal amount of \$0.3 million was issued in January 2015, and was tendered to us as partial payment of a 2015 convertible note. The holders of the 2014 demand notes are existing investors who have indicated an interest in participating in the initial public offering contemplated by this prospectus. Such holders have the right to tender the principal and interest of any outstanding 2014 demand note to the Company as payment for shares in this initial public offering.

2015 Convertible Notes. In February and March 2015, we issued secured promissory notes with an aggregate principal amount of \$1.5 million (\$0.3 million was paid by tender of a January 2015 secured demand note). Each 2015 convertible note is convertible at the option of the holder at any time. If a holder elects to convert a 2015 convertible note at any time prior to the completion of an initial public offering, the 2015 convertible note will convert into shares of Series A Preferred Stock, at a conversion rate of 1.25 shares of Series A Preferred Stock for each \$1.00 of principal and/or interest converted. If a holder elects to convert a 2015 convertible note after the completion of an initial public offering, the 2015 convertible note will convert into common stock at a conversion rate of one share of common stock for each \$1.00 of principal and/or interest converted. The 2015 convertible notes do not provide for automatic conversion of the notes at our election or with the approval of less than all of the outstanding holders. The 2015 convertible notes were issued to existing investors in accordance with the participation rights contained in the Investors' Rights Agreement. The 2015 convertible notes are secured by a first priority security interest *pari passu* with the 2014 demand notes and senior to the 2014 convertible notes. The 2015 convertible notes were issued with 15% warrant coverage (an aggregate of 225,011 warrants), with such warrants exercisable for common stock at an exercise price equal to 110% of the initial public offering price, exercisable only if the initial public offering occurs, and then exercisable beginning on the six month anniversary of the closing of the initial public offering, and not automatically exercised in any situation.

2015 Demand Notes. Because we are in need of additional bridge funding to support our operations prior to the closing of this offering, on March 26, 2015, the Board approved additional funding, up to \$2.0 million principal amount, of secured demand notes with the same terms as the 2014 demand notes described above. The first \$500,000 principal amount of a 2015 demand note was subscribed for on March 30, 2015.

In connection with the original issuance of the 2015 convertible notes, we entered into an Amended and Restated Intercreditor Agreement with Harris & Harris Group, Inc., as collateral agent, in connection with the 2014 convertible notes, the demand notes and the 2015 convertible notes, and the secured parties named therein in order to provide for the allocation of assets of the Company in the event of the occurrence of a foreclosure on the Company's assets by the collateral agent. The Amended and Restated Intercreditor Agreement provides that the holders of the outstanding secured demand notes, including the March 2015 secured demand note, and 2015 convertible notes have a first lien on the assets of the Company in the event of a foreclosure by the collateral agent and will share in the Company's assets on a pro rata basis. The holders of the outstanding 2014 convertible notes have a second lien interest in the assets of the Company in the event of a foreclosure by the collateral agent and will not be entitled to recover principal, interest or any other amounts due on such 2014 convertible notes from the assets of the Company until the holders of the outstanding demand notes and the 2015 convertible notes have been repaid in full on the outstanding principal, interest and all other amounts due under such notes.

We have used the capital raised through the issuances of this indebtedness to support our operations as we have continued to pursue the initial public offering contemplated by this prospectus. All of this capital has been provided by existing investors in the Company. The 2014 convertible notes are convertible into Series A Preferred Stock, as are the 2015 convertible notes, if they are converted at the election of the holders prior to the closing of the initial public offering. Such shares of Series A Preferred Stock are convertible into common stock at a conversion rate of one share of common stock for each share of Series A Preferred Stock. The Company anticipates that all of the 2014 convertible notes and all of the 2015 convertible notes will be converted into shares of Series A Preferred Stock prior to the closing of the initial public offering, and all outstanding shares of Series A Preferred Stock will be converted into shares of common stock immediately prior to the closing of the initial public offering. The aggregate number of shares of common stock that would be outstanding if all such conversions were effected is 7,868,347 shares, plus warrants to purchase 225,011 shares of common stock issued to the holders of the 2015 convertible notes. The following table shows the effects of the conversion of the Series A Preferred stock and the 2014 and 2015 convertible notes, assuming they are all converted immediately prior to the initial public offering:

Debt/Equity	Outstanding at 04/01/2015	Convertible into Series A Preferred	Conversion to Common Stock
Series A Preferred Stock (1)	3,999,864	N/A	3,999,864
2014 convertible notes (2)	\$1,500,000	1,500,000	1,500,000
2015 convertible notes (3)	\$1,500,000	1,875,000	1,875,000
Common stock	493,483	N/A	N/A

- (1) The holders of 70% of the Series A Preferred Stock or the Company can force a conversion upon closing of the initial public offering.
- (2) The holders of 70% of the 2014 convertible notes or the Company can force a conversion upon closing of the initial public offering.
- (3) If converted by all holders prior to the closing of the initial public offering. If a holder of a 2015 convertible note waits until after the closing of the initial public offering, the 2015 convertible note would be convertible into common stock at a conversion rate of one share of common stock for each \$1.00 converted. In addition, the holder could elect to retain the 2015 convertible note as a debt instrument, and be repaid in cash at maturity on February 17, 2016. If that occurs, the Company may need to use a portion of the proceeds of this offering to repay such note(s).

In addition, the holders of \$2.0 million outstanding aggregate principal amount of demand notes who have indicated an intent to participate in the offering may elect to tender the principal and accrued interest of such demand notes to us as payment for shares in the initial public offering at the initial public offering price. If that occurs, we will not receive cash proceeds for such shares, but will be able to retire such indebtedness upon the issuance of such shares of common stock.