VIA EDGAR AND FEDEX

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December 1, 2014

United States Securities and Exchange Commission Division of Corporation Finance Mail Stop 6010 100 F Street, N.E. Washington, D.C. 20549 Attn: Jeffrey P. Riedler Sasha Parikh Johnny Gharib

Re: Bellicum Pharmaceuticals, Inc. Registration Statement on Form S-1 File No. 333-200328

Dear Mr. Riedler:

On behalf of our client, Bellicum Pharmaceuticals, Inc. (the "*Company*"), we are submitting this letter in response to comments received from the staff (the "*Staff*") of the Securities and Exchange Commission (the "*Commission*") by letter dated November 14, 2014 (the "*Comment Letter*"), relating to the Company's confidential draft registration statement on Form S-1 submitted to the Commission on October 17, 2014, which was subsequently amended in response to the Comment Letter and filed with the Commission on November 18, 2014 (the "*Registration Statement*"). In this letter, we are responding only to comment number 13 in the Comment Letter, the text of which we have incorporated into this response letter for convenience.

Confidential Treatment Request

Due to the commercially sensitive nature of information contained herein, the Company hereby requests, pursuant to 17 C.F.R. § 200.83, that certain portions of this letter be maintained in confidence, not be made part of any public record and not be disclosed to any person as they contain confidential information. The Company has filed a separate copy of this letter, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment. In accordance with 17 C.F.R. § 200.83(d)(1), if any person (including any governmental employee who is not an employee of the Commission) should request access to or an opportunity to inspect this letter, we request that we be immediately notified of any such request, be furnished with a copy of all written materials pertaining to such request (including, but not limited to, the request itself) and be given at least ten business days advance notice of any intended release so that the Company may, if deemed necessary or appropriate, pursue any remedies available to it. In such an event, we request that you telephone the undersigned rather than rely upon the U.S. mail for such notice. The address and telephone number for Julie Robinson, the responsible representative, is c/o Cooley LLP, 4401 Eastgate Mall, San Diego, California 92121-1909, telephone number (858) 550-6092.

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Staff Comment and Company Response

Critical Accounting Policies and Significant Estimates

Stock-Based Compensation, page 63

13. We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us with an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

Response:

Historically, the fair value of the common stock underlying the Company's stock-based awards has been determined on each grant date by the Company's board of directors (the **"Board"**), with input from management. All options to purchase shares of the Company's common stock were intended to be granted with an exercise price per share no less than the fair value per share of the Company's common stock underlying those options on the date of grant, determined in good faith and based on the information known to the Board on the date of grant. In the absence of a public trading market for the Company's common stock, on each grant date, the Board considered various objective and subjective factors described in detail in the Registration Statement, along with input from management, to determine the fair value of the Company's common stock.

In addition to the above factors, as part of its assessment of the fair value of the Company's common stock for purposes of making stock option grants, the Board most recently also considered and relied upon appraisals of the fair value of the Company's common stock as of July 31, 2014 and October 15, 2014 from independent third-party valuation specialists using methodologies, approaches and assumptions consistent with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation (the *"Practice Aid"*).

In connection with its preparation for a possible initial public offering of its common stock (*"IPO"*), the Company directed an independent valuation firm to complete valuations for December 31, 2011, 2012 and 2013 (also using methodologies, approaches and assumptions consistent with the Practice Aid). These valuations were delivered to the Company in October 2014 and were not available to the Board at the time of the grants made in 2012, 2013 or the first half of 2014 and, with the value of hindsight through these retrospective valuations, the options granted by the Company in 2012, 2013 and the first six months of 2014 were granted with exercise prices that exceeded the fair value of the underlying common stock on the respective dates of grant.

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December 31, 2011 Retrospective Valuation

In accordance with the Practice Aid, the December 31, 2011 valuation appraisal used an Options Pricing Model ("*OPM*") method. The enterprise value was determined using a "backsolve" method which sets the implied price of the most recent round of preferred to its original issuance price to get to the implied equity value of the Company and per share value. A discount for lack of marketability ("*DLOM*") of 35% was applied to the OPM model assuming an exit event at the end of 2013. The resulting fair value of the Company's common stock was \$0.41 per share.

2012 Grants

From April 2012 through November 2012, the Board granted an aggregate of 202,500 options to purchase shares of common stock on April 19, 2012 and November 6, 2012. At each grant date, the Board determined that the fair value of the Company's common stock was \$1.50 per share in connection with the grants of stock options. At the times of these grants, the Board did not have the benefit of the December 31, 2011 retrospective valuation of \$0.41 per share, referenced above.

December 31, 2012 Retrospective Valuation

In accordance with the Practice Aid, the December 31, 2012 valuation appraisal used an OPM method. The enterprise value was determined using a "backsolve" method which sets the implied price of the most recent round of preferred to its original issuance price to get to the implied equity value of the Company and per share value. A DLOM of 35% was applied to the OPM model assuming an exit event at the end of 2014. The resulting fair value of the Company's common stock was \$0.51 per share.

2013 Grants

From January 23, 2013 through August 14, 2013, the Board granted an aggregate of 767,500 options to purchase shares of common stock on January 23, 2013, May 2, 2013 and August 14, 2013. At each grant date, the Board determined that the fair value of the Company's common stock was \$1.50 per share in connection with the grants of stock options. At the times of these grants, the Board did not have the benefit of the December 31, 2012 retrospective valuation of \$0.51 per share, referenced above.

December 31, 2013 Retrospective Valuation

In accordance with the Practice Aid, the December 31, 2013 valuation appraisal used a hybrid method of an OPM and the probability-weighted return methodology ("*PWERM*") to allocate enterprise value. The enterprise value for the OPM arm of the analysis (the stay private scenario) was determined using a "backsolve" method which sets the implied price of the most recent round of preferred to its original issuance price to get to the implied equity value of the Company and per share value. The Company allocated enterprise value using a PWERM model for the scenarios of an IPO in a moderate market and a lower market. The enterprise values used for the two scenarios were each less than the enterprise value that is implied by the

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estimated public offering price discussed below. This was due primarily to the early stage of the Company's clinical programs and the belief that the Company would need another round of private equity financing before it could pursue an IPO. Additionally, the lower market scenario assumed investor fatigue at the likely time for a public offering by the Company and a glut of competition in the Company's industry and placed the market value at essentially flat to the Company's Series C financing value, which financing occurred in August 2014. The valuation applied a present value discount to the IPO equity value of 0.81, assuming a 50% chance of an IPO in February 2015 in each of the two market conditions that were modeled, and a DLOM of 20%. A DLOM of 30% was applied to the OPM model assuming an exit event at the end of 2015. The hybrid model weighted the PWERM model at 10% and the OPM at 90%. The resulting fair value of the Company's common stock was \$1.26 per share.

January – June 2014 Grants

From January 28, 2014 through June 6, 2014, the Board granted an aggregate of 77,500 options to purchase shares of common stock on January 28, 2014, April 22, 2014 and June 6, 2014. At each grant date, the Board determined that the fair value of the Company's common stock was \$1.50 per share in connection with the grants of stock options. At the times of these grants, the Board did not have the benefit of the December 31, 2013 retrospective valuation of \$1.26, referenced above.

July 31, 2014 Valuation

Prior to February 2014, the Company had not taken any steps to explore the possibility of a new round of private financing or a public offering, having just completed the final closing of its Series B preferred stock financing in January 2014. Between February 1, 2014 and July 31, 2014 a number of developments made it more likely that the Company could have a successful IPO by the end of the first quarter of 2015, including: (i) invitations to participate in investor conferences focusing on immuno-oncology, at which the Company learned of significant institutional investor interest in the Company's differentiated platform technology and product pipeline; (ii) the engagement of an investment bank to assist with a possible private financing in the third quarter; and (iii) the continuing success of a number of early-stage pharmaceutical companies in raising capital through public offerings.

In accordance with the Practice Aid, the July 31, 2014 valuation appraisal used a hybrid method of an OPM and the PWERM model to allocate enterprise value. The valuation allocated enterprise value using a PWERM model for the scenarios of a base case market, and allocated enterprise value using an OPM model for a stay private scenario. The base case market scenario used in the PWERM model was approximately two-thirds of the enterprise value that is implied by the estimated public offering price discussed below. This is because the market was estimated to be more selective in and around the time of the valuation such that investors were more discerning about IPO supply, and also because other early-stage, yet promising, companies were unable to price their IPOs or had to reduce their offering price dramatically in the months before the valuation date. However, the probability of an IPO increased in the analysis from the December 31, 2013 valuation. The valuation applied a present value discount to the IPO equity value of 0.90, assuming a 100% chance of a base case IPO in 0.58 years, and a DLOM of 10%. A DLOM of 30% was applied to the OPM model assuming an exit event at July 30, 2016. The hybrid model weighted the PWERM model at 60% and the OPM at 40%. The resulting fair value of the Company's common stock was \$4.01 per share.

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The Company did not grant any stock options during the period between July 31, 2014 and October 27, 2014.

October 15, 2014 Valuation

In accordance with the Practice Aid, the October 15, 2014 valuation appraisal used a hybrid method of an OPM and the PWERM to allocate enterprise value. The valuation allocated enterprise value using a PWERM model for the scenarios of an IPO in the same base case market as was used for the July 31, 2014 valuation, and allocated enterprise value using an OPM model for a stay private scenario. The valuation applied a present value discount to the IPO equity value of 0.93, assuming a 100% chance of a base case IPO in 0.4 years, and a DLOM of 8%. A DLOM of 30% was applied to the OPM model assuming an exit event at October 14, 2016. The hybrid model weighted the PWERM model at 70% and the OPM at 30%. The resulting fair value of the Company's common stock was \$4.39 per share.

October-November 2014 Grants

On October 28, 2014, the Board granted 271,000 options to purchase shares of common stock, on November 11, 2014, the Board granted 1,205,000 options to purchase shares of common stock and on November 14, 3014, the Board granted 275,000 options to purchase shares of common stock. At the grant dates, the Board determined that the fair value of the Company's common stock was \$4.39 per share in connection with the grants of stock options, in consideration of the valuation analysis as of October 15, 2014 and the other objective and subjective factors described in the Registration Statement. The Board determined that on each of October 28, 2014 and November 11, 2014 no significant business or market developments had occurred since the valuation date of October 15, 2014.

However, the Company also advises the Staff that once the bona fide initial offering price range has been determined, the Company anticipates retrospectively reassessing, solely for financial accounting purposes, the common stock fair value related to the options granted in November 2014. The Company advises the Staff that fair value for financial accounting purposes of the options granted in November 2014 will be the midpoint of the bona fide initial offering price range and that it expects to include any related expected stock-based compensation charges in the fourth quarter of 2014.

Preliminary IPO Price Range

In November 2014, and following the option grants on October 28, 2014 and November 11, 2014 the Company had meetings with potential investors in reliance on Section 5(d) of the Securities Act of 1933, as amended (the "*Act*"). In connection with such meetings, the Company received feedback from potential investors which caused the underwriters and the Board to increase its expectations regarding the anticipated probability of a near-term IPO and the value of the Company.

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The Company respectfully advises the Staff that on November 20, 2014, representatives of the lead book-running managers of its initial public offering advised the Company that, based on then-current market conditions, they anticipated that the underwriters would recommend to the Company a preliminary estimated initial public offering price to be included on the cover of the Company's preliminary prospectus of [...***...] to [...***...] per share (the "*Preliminary IPO Price Range*").

The Company advises the Staff that it will set forth a bona fide initial offering price range in a pre-effective amendment to the Registration Statement prior to the distribution of any preliminary prospectus, which price range will be within the Preliminary IPO Price Range. The parameters of that price range will be subject to then-current market conditions, continuing discussions with the underwriters, and any further business, market or other developments impacting the Company.

The Company respectfully submits to the Staff that the increase in value between the most recent valuation report described above, compared to the Preliminary IPO Price Range, is reasonable. Specifically, the Company submits to the Staff that the October 15, 2014 valuation report appropriately reflected the potential for a stay private scenario. The probability of completing an IPO was determined to be 70% at October 15, 2014, and the IPO equity value determination was \$7.01 per share, before applying a 0.93 present value discount and a DLOM of 8%, which took into consideration the continuing volatility of the biotechnology IPO market, the failure of biotechnology companies in recent months to complete an IPO and a less favorable IPO valuation than what is currently anticipated. In contrast, the Preliminary IPO Price Range is a single outcome which necessarily assumes that the IPO has occurred and a public market for the Company's common stock has been created. As a result, unlike the valuation performed in connection with the Company's option grants as a private company, the Preliminary IPO Price Range excludes any marketability or illiquidity discount for the Company's common stock and takes into account that the initial public offering would provide significant additional cash proceeds to the Company to help fuel its growth and substantially strengthen the Company's balance sheet.

Finally, there are other factors that support the discount in the October 15, 2014 valuation determination, compared to the Preliminary IPO Price Range, including (i) the inherent uncertainty of completing a successful initial public offering, (ii) the possibility that the actual initial public offering price could be substantially lower than the Preliminary IPO Price Range recommended by the Company's underwriters and (iii) the 180-day lock-up agreement to which the shares underlying the stock options will be subject following the initial public offering.

Destruction of this Unredacted Letter Pursuant to Rule 418 Under the Act

We further request, pursuant to Rule 418 under the Act, that this unredacted letter be destroyed promptly following the Staff's completion of its review of such information.

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The Company respectfully requests the Staff's assistance in completing its review of the supplemental information contained herein as soon as possible. Please advise us if we can provide any further information or assistance to facilitate your review. And please contact me at (858) 550-6092 if you have any questions regarding the Registration Statement or the foregoing information.

Sincerely,

COOLEY LLP

/s/ Julie M. Robinson

Julie M. Robinson, Esq.

cc: Thomas Farrell, Bellicum Pharmaceuticals, Inc. Eric Blanchard, Esq., Covington & Burling LLP

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