

May 20, 2014

**VIA FEDERAL EXPRESS AND EDGAR**

United States Securities and Exchange Commission  
Division of Corporation Finance  
Mail Stop 4561  
100 F Street, N.E.  
Washington, D.C. 20549  
Attention: Austin Stephenson  
Dan Greenspan

**RE: Zafgen, Inc.**  
**Registration Statement on Form S-1 (the "Registration Statement")**  
**File No. 333-195391**  
**CIK No. 0001374690**

Dear Mr. Stephenson:

This letter is being submitted on behalf of Zafgen, Inc. (the "Company") to supplementally provide the Staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") additional information with respect to the above-referenced Registration Statement. To assist the Staff of the Commission in the review of the Registration Statement, we have enclosed the following:

1. A *bona fide* estimate of the range of the offering price for the shares of the Company's common stock offered by the Registration Statement, attached hereto as Exhibit A.
2. Proposed disclosure that the Company intends to include in a subsequent amendment to the Registration Statement listing the significant factors contributing to any difference between its most recent common stock valuation and the midpoint of the estimated price range for this offering. The Company expects that such disclosure would be generally consistent with the currently contemplated disclosure attached

Confidential treatment requested under 17 C.F.R. § 200.83 (1992) for portions indicated by [\*]

hereto as Exhibit B and that the subsequent amendment to the Registration Statement would give effect to a 6.28-for-1 reverse stock split to be effective prior to the initial public offering.

The Company respectfully requests that the Staff return to us this letter and the information provided pursuant to Exhibits A and B pursuant to Rule 418 of the Securities Act of 1933, as amended, once the Staff has completed its review. We have provided a self-addressed stamped envelope for this purpose. In addition, the Company requests confidential treatment under 17 C.F.R. § 200.83 (1992) for this letter and the information provided pursuant to Exhibits A and B of this letter and has submitted a separate request for confidential treatment in accordance therewith to the Commission's Office of Freedom of Information and Privacy Act Operations.

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If you have any questions or comments regarding the foregoing, or if there is any additional information that we might provide to assist the Staff's review, please contact the undersigned at (617) 570-1021.

Sincerely,

/s/ Laurie A. Burlingame, Esq.

Laurie A. Burlingame, Esq.

cc: Thomas Hughes, *Zafgen, Inc.*  
Patricia Allen, *Zafgen, Inc.*  
Mitchell S. Bloom, *Goodwin Procter LLP*  
Michael J. Minahan, *Goodwin Procter LLP*

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Exhibit A

The Company supplementally advises the Staff that the managing underwriters in the initial public offering have communicated to the Company that they expect the proposed price range for the common stock to be between \$[\*] to \$[\*] per share, after giving effect to a 6.28-for-1 reverse stock split to be implemented prior to the initial public offering. This estimated *bona fide* price range is based on a number of factors, including the prevailing market conditions and estimates of the Company's business potential, the general condition of the securities market, the recent market prices of, and the demand for, publicly traded common stock of generally comparable companies and preliminary discussions with the underwriters for this offering regarding potential valuations of the Company. The actual *bona fide* price range to be included in a subsequent amendment to the Registration Statement has not yet been determined and remains subject to adjustment based on factors outside of the Company's control. However, the Company believes that the actual *bona fide* price range will be within this estimated *bona fide* price range. In addition, the actual price range to be included in such amendment will comply with the Staff's interpretation regarding the parameters of a *bona fide* price range.

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Exhibit B

*Estimated Offering Price*

In May 2014, we and our underwriters determined the estimated price range set forth on the cover of this prospectus, which is \$[\*] to \$[\*] per share. In comparison, our estimate of the fair value of our common stock was \$9.67 per share as of December 20, 2013, when we last obtained a third-party valuation of our common stock as one of the factors considered by our board of directors in determining the fair value of our common stock, and as of January 30, 2014, when our board of directors last determined the fair value of our common stock. We note that, as is typical in initial public offerings, the price range for this offering was not derived using a formal determination of fair value, but was determined based upon discussions between us and the underwriters. Among the factors considered in setting the price range for this offering were the following:

- an analysis of the typical valuation ranges seen in recent IPOs for companies in our industry;
- the general condition of the securities market and the recent market prices of, and the demand for, publicly traded common stock of generally comparable companies;
- an assumption that there would be a receptive public trading market for biopharmaceutical companies such as us; and
- an assumption that there would be sufficient demand for our common stock to support an offering of the size contemplated by this prospectus.

In addition, we believe that the difference in value reflected between the midpoint of the price range for this offering and the board of directors' determination of the fair value of our common stock on January 30, 2014 was primarily the result of the following subsequent events and circumstances:

- Since late February 2014, we have received significant guidance from the FDA and certain European regulatory authorities regarding the design of our Phase 3 clinical program, consisting of two Phase 3 clinical trials of beloranib in PWS patients. As a result, we plan to begin our Phase 3 clinical program of beloranib in PWS patients in the second half of 2014.

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- On March 31, 2014, we entered into a loan and security agreement, which provided us initial borrowings of \$7.5 million and additional future borrowings of up to \$12.5 million, providing us additional liquidity.
- In May 2014, we completed our long-term chronic toxicology studies in rat and dog, and we plan to submit the results of such studies, along with other information, to the FDA in the second quarter of 2014.
- In May 2014, we validated our drug product manufacturing processes and have generated clinical trial materials to support initiation of our planned Phase 2b clinical trial of beloranib as a treatment for severe obesity in the general population and our Phase 3 clinical program of beloranib in PWS patients.
- The initial public offering price is based only upon a scenario in which we complete this offering and is not probability weighted, in contrast to our prior valuations of common stock, which had to consider multiple potential outcomes, some of which would have resulted in a lower value of our common stock than an initial public offering.
- The initial public offering price necessarily assumes that the initial public offering has occurred and that a public market for our common stock has been created, and, therefore, it excludes any discount for lack of marketability of our common stock, which was appropriately taken into account in our board of directors' determination of the fair value of our common stock on January 30, 2014.
- Our redeemable convertible preferred stock has substantial economic rights and preferences superior to our common stock. The initial public offering price assumes the conversion of our redeemable convertible preferred stock to common stock upon the completion of this offering and the corresponding elimination of such superior economic rights and preferences.

Based on an assumed initial public offering price of \$[\*] per share, the midpoint of the price range set forth on the cover page of this prospectus, the aggregate intrinsic value of stock options outstanding as of March 31, 2014 was \$[\*] million, of which \$[\*] million related to vested options and \$[\*] million related to unvested options.

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