

October 24, 2014

**CONFIDENTIAL TREATMENT REQUESTED BY HISTOGENICS CORPORATION
PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST
FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED
WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE
CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES
AND EXCHANGE COMMISSION.**

Via EDGAR and Courier

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attention: Amanda Ravitz
Jay Mumford
Daniel Morris

**Re: Histogenics Corporation
Registration Statement on Form S-1 (File No. 333-199202)
Filed October 7, 2014**

Dear Ms. Ravitz:

On behalf of Histogenics Corporation (the “**Company**”), and in connection with the submission of letters dated April 11, 2014 (the “**Original Response Letter**”) and October 23, 2014 (the “**Initial Supplemental Response Letter**”) in response to comments from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) contained in your letter dated March 13, 2014 (the “**Comment Letter**”), relating to the above-referenced Registration Statement on Form S-1 originally confidentially submitted by the Company with the Commission on February 14, 2014 (the “**Registration Statement**”), we submit this supplemental letter to further address comment 8 of the Comment Letter and fully amend and restate the Initial Supplemental Response Letter as set forth herein.

Because of the commercially sensitive nature of information contained herein, this submission is accompanied by a request for confidential treatment for selected portions of this letter. The Company has filed a separate letter with the Office of Freedom of Information and Privacy Act Operations in connection with the confidential treatment request, pursuant to Rule 83 of the Commission’s Rules on Information and Requests, 17 C.F.R. § 200.83. For the Staff’s reference, we have enclosed a copy of the Company’s letter to the Office of Freedom of Information and Privacy Act Operations, as well as a copy of this correspondence, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment. For the convenience of the Staff, we are providing to the Staff by overnight delivery copies of this letter.

In this letter, we have recited comment 8 of the Comment Letter in italicized, bold type and have followed the comment with the Company’s response. Except as otherwise specifically indicated, page references herein correspond to the page of the Registration Statement, as applicable.

Stock-Based Compensation, pages 60-66 of February 14, 2014 Confidentially Submitted S-1

8. *Please tell us the estimated initial public offering price. To the extent that there is a significant difference between the estimated grant-date fair value of your common stock during the past twelve months and the estimated IPO price, please discuss for us each significant factor contributing to the difference.*

To assist the Staff in its evaluation of the Company's stock compensation, the Company has provided the analysis as set forth in this letter. Please note that the foregoing per share amounts, and other per share amounts set forth in this letter, do not reflect the impact of an anticipated reverse stock split of outstanding capital stock on a ***-to-1 basis, which the Company plans to effect prior to the closing of the Company's initial public offering ("IPO").

The Company will set forth a bona fide offering price range in a pre-effective amendment to the Registration Statement prior to the distribution of any preliminary prospectus.

GRANTS OF COMMON STOCK OPTIONS IN THE PRECEDING 12 MONTHS

The following table summarizes by grant date the number of shares of common stock underlying stock options granted during the previous twelve months, as well as the associated per share exercise price and the estimated fair value per share of the Company's common stock on the grant date:

Grant Date	Number of Common Shares Underlying Options Granted	Exercise Price Per Common Share	Estimated Fair Value Per Common Share
December 11, 2013	1,353,211	\$ 0.66	\$ 0.66
April 30, 2014	2,311,460	\$ 0.74	\$ 0.74
July 17, 2014	988,542	\$ 0.83	\$ 0.83

DETERMINATION OF FAIR VALUE OF COMMON STOCK

The Company respectfully directs the Staff to pages 65 through 66 of the Registration Statement for a thorough discussion of the Company's methodology for determining the fair value of its common stock. As described in the Registration Statement, the Company has historically determined the fair value of its common stock using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation (the "**Practice Guide**"). In addition, the Company's Board of Directors also considered numerous objective and subjective factors, along with input from management, to determine the fair value of the Company's common stock as disclosed in the Registration Statement.

In connection with determining the fair value of the Company's common stock of \$0.83 per share as of June 30, 2014, as described on page 69 of the Registration Statement (the "**June Valuation Price**"), the Company utilized the Probability Weighted Expected Return Method ("**PWERM**"). The PWERM is a scenario-based analysis that estimates the per share value of common stock based on the probability-weighted present value of expected future equity values for the common stock, under various possible future liquidity event scenarios, in light of the rights and preferences of each class of stock, discounted for time to liquidity event at a rate that considers lack of marketability. The Company believes that the probability weighting of each potential liquidity event used in its PWERM analysis was an appropriate

*** Confidential material redacted

CONFIDENTIAL TREATMENT REQUESTED BY HISTOGENICS CORPORATION

methodology in 2013 and 2014 in light of the Company's stage of development, the status of its research and development efforts and financial position, external market conditions affecting the life sciences industries, the volatility in the capital markets, especially with respect to initial public offerings, and the relative likelihood of achieving a liquidity event such as an initial public offering or sale of the Company in light of prevailing market conditions.

VALUATIONS AND OPTION GRANTS OVER THE PREVIOUS 12 MONTHS

The Company respectfully directs the Staff to pages 66 through 69 of the Registration Statement for a thorough discussion of the Company's valuation and option grants over the previous 12 months. The Company considered 7 liquidation events consisting of (i) two near term initial public offering scenarios, (ii) one longer term valuation initial public offering scenario, (iii) three different acquisition or merger scenarios with low, medium and high valuations, and (iv) a dissolution scenario. For the purpose of determining the June Valuation Price, the two near term initial public offering scenarios were given probability weights of 35% and 40%, the longer term initial public offering scenario was given a probability weight of 5%, each of the three acquisition or merger scenarios were given a probability weight of 5% and the dissolution scenario was given a probability weight of 5%.

DISCUSSION OF ESTIMATED OFFERING PRICE

The Company advises the Staff that in October 2014, the Company's lead underwriters advised the Company that, based on the then-current market conditions, they would recommend to the Company a preliminary price range of \$* * * to \$* * * per share (the "**Preliminary Price Range**"), with a midpoint of \$* * * per share (the "**Midpoint Price**"), for the Company's IPO. As mentioned above, the foregoing per share amounts, and other per share amounts set forth in this letter, do not reflect the impact of an anticipated reverse stock split of the Company's outstanding common stock, which the Company plans to effect prior to the closing of the IPO.

As is typical in IPOs, the estimated price range for the offering was derived by quantitative and qualitative analysis that differed from the methodology previously used by the Company. Among the factors that were considered in setting the estimated price range prepared by the Company's lead underwriters for the offering were the following:

- an analysis of the typical valuation ranges seen in recent IPOs for comparable companies in the Company's industry;
- the general condition of the securities markets and the recent market prices of publicly traded common stock of comparable companies;
- an assumption that there would be a receptive public trading market for clinical stage biotechnology companies such as the Company; and
- an assumption that there would be sufficient demand for the Company's common stock to support an offering of the size contemplated by the Company.

The Midpoint Price range of \$* * * per share exceeds the fair value of the June Valuation Price by \$* * * per share. The Company respectfully submits that the difference between the June Valuation Price and the Midpoint Price is primarily attributable to the fact that the methodology applied for determining the June Valuation Price incorporated multiple probability-weighted liquidity scenarios, not all of which allocate value to the Company's common stock, and inherently decreases the estimated fair value per share due to the combination of (i) the mix of other expected business equity values discounted for their future value and (ii) the application of a discount to liquidity event which accounts for lack of marketability. In contrast, the Midpoint Price assumes with 100% probability that the Company completes an IPO and the Company's preferred stock will be converted into common stock in the IPO.

*** Confidential material redacted

CONFIDENTIAL TREATMENT REQUESTED BY HISTOGENICS CORPORATION

For purposes of context, in determining the June Valuation Price, a probability weighting of 35% and 40% was assigned to two near term IPO scenarios as noted above. In these scenarios, the fair value of the Company's common stock, prior to the application of a discount due to lack of marketability would have been a weighted average of \$1.09 per share. The Midpoint Price assumes only a single potential liquidity event, the IPO, and does not include a discount for lack of marketability, as an active trading market for the common stock is expected to exist following the IPO. As a result, the Midpoint Price was not impacted by other expected business equity values from other potential future liquidity events nor discounted for lack of marketability.

The June 30, 2014 valuation utilized a present value discount factor based on a 20.9% weighted average cost of capital. The application of the discount factor in all weight adjusted scenarios accounted for approximately \$* * * per share of the approximate \$* * * per share difference between the June Valuation Price and the Midpoint Price.

The June 30, 2014 valuation utilized a discount for lack of marketability ("DLOM") since holders of a minority interest in the equity of a privately held company have no ready market for their interest other than by a private sale to another partner or a willing buyer. The application of the DLOM in all weight-adjusted scenarios accounted for approximately \$* * * per share of the approximate \$* * * per share difference between the June Valuation Price and the Midpoint Price. The Company respectfully submits that the Preliminary Price Range represents a future price for shares of the Company's common stock that, if issued in the IPO, will be immediately freely tradable in a public market, whereas the estimated fair value of the Company's common stock as of the June 30, 2014 grant date represents a contemporaneous estimate of the fair value of shares that were then illiquid, might never become liquid and, even if an IPO were successfully completed, would remain illiquid at least until the expiration of the 180-day lockup period following the IPO. This illiquidity also accounts for a substantial portion of the difference between the June Valuation Price and the Midpoint Price.

The June 30, 2014 valuation also utilized other probability weighted liquidity scenarios in which liquidation preferences of the Company's preferred stockholders received all proceeds and thus there was no value assumed for common stock. These scenarios, which included a Company low valuation sale scenario weighted at 5% and a dissolution scenario weighted at 5%, both resulted in a fair value determination of \$0.00 per share.

The Company believes that the remaining difference between the June Valuation Price and the Midpoint Price is attributed to the fact that the June 30, 2014 valuation utilized a quantitative methodology to determine the fair value of the Company's common stock, which may differ from the more qualitative and subjective methodology used by some public market investors to determine the price that they are willing to pay in the IPO. In addition, following the June 2014 valuation, the Company entered into an exclusive channel collaboration agreement with Intrexon Corporation which was not contemplated when the June 30, 2014 valuation was conducted. Also, other factors may have an impact, such as the inherent uncertainty of completing an IPO and the possibility that the actual offering price could be substantially lower than the estimated offering price range provided by the Company's lead underwriters.

* * * *

*** Confidential material redacted

CONFIDENTIAL TREATMENT REQUESTED BY HISTOGENICS CORPORATION

Please contact me or, in my absence, Albert Vanderlaan, at (617) 648-9298, if you have any questions about this confidential submission.

Sincerely yours,

/s/ Marc Dupré

Marc Dupré
Gunderson Dettmer Stough Villeneuve Franklin &
Hachigian, LLP

cc: Adam Gridley
Histogenics Corporation

Keith Scherer
Albert Vanderlaan
Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

*** Confidential material redacted

CONFIDENTIAL TREATMENT REQUESTED BY HISTOGENICS CORPORATION