November 15, 2013

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Via EDGAR and Electronic Mail

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: **Jeffrey Riedler, Assistant Director**
Amy Reischauer
Daniel Greenspan
James Peklenk
Lisa Vanjoske

FOIA Confidential Treatment Requested Under 17 C.F.R. § 200.83

Re: **Ultragenyx Pharmaceutical Inc.**
Stock-Based Compensation
Registration Statement on Form S-1 (File No. 333-192244)

CERTAIN PORTIONS OF THIS LETTER HAVE BEEN OMITTED FROM THE VERSION FILED VIA EDGAR. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS. INFORMATION THAT WAS OMITTED IN THE EDGAR VERSION HAS BEEN NOTED IN THIS LETTER WITH A PLACEHOLDER IDENTIFIED BY THE MARK "[***]".

Ladies and Gentlemen:

On behalf of Ultragenyx Pharmaceutical Inc. ("***Ultragenyx***" or the "***Company***"), we are supplementally submitting this letter (this "***Letter***") to the staff (the "***Staff***") of the Securities and Exchange Commission (the "***Commission***"). The Company originally filed the above-referenced Registration Statement on Form S-1 (the "***Registration Statement***") with the Commission on November 8, 2013. The purpose of this Letter is to provide supplemental information to the Staff with respect to the accounting treatment for stock-based compensation for its consideration during the review cycle so that the Company may be in a position to print a preliminary prospectus as promptly as practicable after filing an amendment to the Registration Statement. We are respectfully requesting confidential treatment for certain portions of this Letter pursuant to Rule 83 promulgated by the Commission, 17 C.F.R. §200.83. This Letter is accompanied by such request for confidential treatment because of the commercially sensitive nature of the information discussed in this Letter. A redacted letter will be filed on EDGAR, omitting the confidential information contained in this Letter.

The Company's discussion of stock-based compensation is primarily contained within the section of the Registration Statement entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates—Stock-Based Compensation" (the "***MD&A***") and appears on pages 57 through 62 of the Registration Statement.

The Company supplementally advises the Staff that, while not reflected in the Registration Statement, based on discussions with the Company's Board of Directors and reflecting the input from the lead underwriters for its initial public offering, the Company currently anticipates an approximate price range of $[***] to $[***] per share for the Company's common stock (the "***Preliminary IPO Price Range***"), with a midpoint of the anticipated range of approximately $[***] per share (the "***Preliminary Assumed IPO Price***"). The Preliminary IPO Price Range and Preliminary Assumed IPO Price do not reflect any reverse stock split that the Company might effect prior to the Commission's declaration of effectiveness of the Registration Statement. The Company is currently anticipating implementing an approximate [***] to 1 reverse stock split, which would result in a post-split Preliminary IPO Price Range of $[***] to $[***] per share, with a midpoint of $[***] per share. The Company's final post-split Preliminary IPO Price Range remains under discussion between the Company and the lead underwriters, and a bona fide price range will be included in an amendment to the Registration Statement prior to any distribution of the preliminary prospectus in connection with the Company's road show.

HISTORICAL FAIR VALUE DETERMINATION AND METHODOLOGY

As previously disclosed, 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 2013 Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* (the "***AICPA Practice Guide***"). In addition, the Company's Board of Directors also considered numerous objective and subjective factors, along with input from management and third-party valuations, to determine the fair value of the Company's common stock as disclosed in the Registration Statement.

As described in greater detail in the MD&A, prior to June 30, 2013 the Back-Solve Method of the option-pricing method ("***OPM***") was used to derive the per share estimated fair value of the Company's common stock. As described in the MD&A, the Company transitioned to a hybrid method beginning with its June 30, 2013 valuation, which is a method that utilizes a blend of the probability-weighted expected return method ("***PWERM***") and the OPM. The hybrid method can be a useful alternative to explicitly modeling all PWERM scenarios in situations when a company has greater visibility into one or more near-term exits, such as an initial public offering, but is uncertain about what will occur if the current exit plans are not realized. The Company elected to transition to the hybrid method as greater certainty developed regarding its plans for a potential initial public offering. At each grant date, the Board of

Directors considered whether any events occurred that would trigger any material changes to the business or would require adjustment to the estimated fair value from the previous valuation date.

DISCUSSION OF MOST RECENT FAIR VALUE DETERMINATION

As of June 30, 2013, the Company determined the fair value of its common stock to be $1.30 per share. On November 1, 2013, the most recent fair value determination date, the Company determined the fair value of its common stock to be $2.19 per share (the "***Estimated Equity Fair Value Per Share***"). This determination was based in part on a third-party valuation conducted as of September 30, 2013 utilizing the hybrid method and noting the following developments since the June 30, 2013 valuation date: (i) the probability of an initial public offering increased from 50% at June 30, 2013 to 60% at September 30, 2013 and November 1, 2013 as a result of the authorization of preparations for an initial public offering by the Board of Directors in July 2013, the Company's selection of a banking syndicate and an organizational meeting to begin the initial public offering process being held on September 6, 2013; (ii) the Company's announcement in July 2013 that it would initiate development of triheptanoin for a new indication, glucose transporter type-1 deficiency syndrome, or Glut1 DS; and (iii) the Company's entry into a collaboration agreement with Kyowa Hakko Kirin Co. Ltd. on August 29, 2013. The Board of Directors concluded that no material developments had occurred between September 30, 2013 and November 1, 2013 that would be expected to change the valuation or the continued validity of the underlying assumptions. The Company made only one public announcement relating to its operations during that period, which related to Phase 1 data for the KRN23 product candidate; however, this data was known and incorporated into the September 30, 2013 valuation. The Company has not made any equity grants since November 1, 2013. The estimated fair value as of September 30, 2013 was derived based on two potential future liquidity events under the hybrid method:

(i) an initial public offering within six months of such date (the "***IPO***"); or

(ii) remaining a private company beyond 12 months from such date with a potential sale or merger in one and a half years from such date ("***Remain Private***").

For each of these potential future liquidity events, the Company estimated an equity value, an equity value per share discounted for a lack of marketability and, ultimately, a present value of such per share equity value. A probability weighting of the applicable liquidity event was then applied and resulted in the estimated fair value per share. The following table sets forth the results of the hybrid method analysis that was utilized in the September 30, 2013 valuation and subsequently used by the Company to determine the Estimated Equity Fair Value Per Share as of November 1, 2013 (in millions, except per share data):

HYBRID METHOD	IPO	Remain Private
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	

The Company believes that the potential future liquidity events used in its hybrid method analysis and the probability weighting of each event was reasonable at each of September 30, 2013 and November 1, 2013, in light of the Company's stage of clinical development, its expected near-term and long-term funding requirements, and an assessment of the current financing and pharmaceutical and biotechnology industry environments, external market conditions affecting the pharmaceutical and biotechnology industries, 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. The timing of these future liquidity events was determined primarily from input from the Company's Board of Directors and its management. A critical factor in assigning the probability weighting and estimated time to the liquidity event was the Company's progress in the initial public offering process in that the Board of Directors had authorized preparations for an initial public offering in July 2013, the Company selected a banking syndicate for the initial public offering and an organizational meeting for the initial public offering was held on September 6, 2013.

To determine the equity value for the IPO scenario and the Remain Private Scenario, the enterprise value of the Company was calculated using the income approach, which is based on the premise that the value of a business is the present value of the future earning capacity that is available for distribution to investors. The income approach involves estimating the discounted cash flow for the business and considered the Company's estimated timing to achieve revenue and its subsequent revenue growth, expectations regarding gross margins and operating expenses and anticipated timing to positive EBITDA. Notably, the Company does not anticipate generating revenue until [***] at the earliest. Projected free cash flows were calculated by adding net income and depreciation and amortization and then subtracting capital expenditures and working capital. The annual cash flows were then discounted to account for the nature and timing of the Company's expected cash flows, resulting in a business enterprise value of $[***]. The Company's cash and cash equivalents of $[***] at September 30, 2013 were then added to

$[***] to arrive at a business enterprise value of $[***]. The total equity value was then allocated to the common stock, taking into account the allocated value to each class of stock based on a valuation of each class of stock using the OPM.

PRELIMINARY ASSUMED IPO PRICE

As noted above, the Preliminary IPO Price Range is $[***] to $[***] per share, with a Preliminary Assumed IPO Price of approximately $[***] per share. The foregoing prices per share do not reflect any reverse stock split that the Company might effect prior to the Company's IPO.

The following table summarizes the Company's anticipated pre-offering equity values (based on the low-end, mid-point and high-end of the Preliminary IPO Price Range) (in millions, except per share data).

	Low-End	Mid-Point	High-End
Pre-Offering Equity Value	$ [***]	$ [***]	$ [***]
Pre-Offering Equity Value Per Share	$ [***]	$ [***]	$ [***]

COMPARISON OF IPO PRICE RANGE AND ESTIMATED EQUITY FAIR VALUE PER SHARE

The Company notes that, as is typical in initial public offerings, the estimated price range of this offering was not derived using a formal valuation of fair value, but was determined by negotiation between the Company and the underwriters. The Company believes the difference between the Preliminary IPO Price Range and the Estimated Equity Fair Value Per Share at November 1, 2013 primarily results from consideration of four factors, each of which is discussed in more detail below. First, the Company expects material progress in several of its programs between November 1, 2013 and the consummation of the IPO (i.e., the price range assumes that certain future events will take place). Additionally, at a meeting of the Board of Directors on November 6, 2013, the Company received formal feedback from its underwriters that the Company's "test the waters" meetings indicate that there is anticipated to be high demand for the Company's common stock. The Company also considered the market values of biotechnology companies that have recently completed initial public offerings as well as the fact that the market for initial public offerings generally, such as the recent offering of Twitter, Inc., have been strong.

Finally, the Company considered the inherent discounting in the hybrid method, including the probability assigned to a potential initial public offering.

Expected Progress in Several of the Company's Programs

A primary factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Equity Fair Value Per Share is that the Company has made or expects to make material progress with several of its programs between November 1, 2013 and the consummation of the IPO. For example, the Company recently initiated treatment with recombinant human beta-glucuronidase, or rhGUS, of its first patient with mucopolysaccharidosis 7, or MPS 7, under an emergency investigational new drug, or IND, application in the United States. [***]. Additionally, between the date of this letter and the consummation of the IPO, the Company expects to enroll its first patient in a Phase 1/2 clinical trial testing rhGUS in MPS 7, and also expects to enroll its first patient into a Phase 2 clinical trial testing triheptanoin in long-chain fatty acid oxidation disorders, or LC-FAOD. The successful achievement of these future milestones is taken into consideration in the Preliminary IPO Price Range, although no such assumption was made as of September 30, 2013 or November 1, 2013.

Further, as early as December of this year, the Company expects to enroll its first patient in an adaptive Phase 2 trial testing triheptanoin in Glut1 DS. Between the date of this letter and the commencement of the road show for the IPO, the Company also anticipates that it will report 48-week data from its Phase 2 trial of an extended-release oral formulation of sialic acid, or SA-ER, in hereditary inclusion body myopathy, or HIBM, and that the 48-week data will likely show [***]. The Preliminary IPO Price Range has already priced in these clinical trial results, although no such assumption was made as of September 30, 2013 or November 1, 2013.

Positive Feedback from "Test the Waters" Meetings

Another factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Equity Fair Value Per Share is that the Company has conducted "test the waters" meetings with key institutional investors, as permitted under the Jumpstart Our Business Startups Act, and, at the November 6, 2013 Board of Directors meeting, received positive feedback from its underwriters indicating that, based on such "test the waters" meetings, there was anticipated to be high demand for the Company's common stock as of that date. Based in part upon these "test the waters" meetings, the Company received feedback at the same November 6, 2013 Board meeting from its lead underwriters that a valuation in the range of the Preliminary IPO Range could be achievable. Accordingly, the Board of Directors agreed to consider a potential acceleration of the IPO timeline to [***] rather than [***] as originally planned. In arriving at the Preliminary IPO Price Range, the underwriters considered the Company's potential cash flow projections, but also considered the valuations of comparable biotechnology companies that had

recently completed initial public offerings, as well as the valuations of other comparable public companies. These comparable public companies became relevant once the November 6, 2013 Board of Directors meeting occurred, since the IPO timeline became compressed and the probability of an IPO increased.

Market Conditions

Another primary factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Equity Fair Value Per Share is that the market conditions in general (including for initial public offerings), and in the biotechnology industry and orphan drug sector specifically, have been stronger in 2013 than in recent years. More companies in the biotechnology industry have successfully completed initial public offerings this year than in recent years and at higher valuations than in recent years. From January 1, 2013 to November 15, 2013, there have been [***] biotechnology or pharmaceutical IPOs (the "***2013 IPO class***"). Of these IPOs, [***] priced within or above their original price range. As discussed above, the Company considered the valuations of the 2013 IPO class, as well as the valuations of other comparable public companies in setting the Preliminary IPO Price Range, but only after the November 6, 2013 Board of Directors meeting occurred, as the IPO timeline became compressed and the probability of an IPO increased at that time, making valuations of these public and recently public companies more relevant to the Company's valuation as a publicly traded company.

The average current market capitalization of the 2013 IPO class is approximately $[***] and the average current market capitalization of orphan drug companies in the 2013 IPO class, which includes [***] and [***], is approximately $[***].[1] The Company's Pre-Offering Equity Value range of $[***] to [***] is consistent with these market capitalization values. Market capitalization of comparable companies is a key metric used by the underwriters to value the Company in the context of a potential IPO. However, market capitalization of comparable companies is not a metric used in valuing private companies in accordance with the AICPA Practice Guide. This is why the Company had not considered the market capitalization of comparable companies in prior valuations. In the context of a potential near-term IPO, metrics used by the underwriters become more relevant, because the estimated price range of the offering is determined by negotiation between the Company and the underwriters.

In addition to improved market conditions for biotechnology and orphan drug company initial public offerings in 2013, general market conditions also factored into accounting for the increase

1 [***] has been excluded from the calculation of average market capitalization of orphan drug companies because of its announcement of negative data results for its lead product candidate in [***]. This announcement resulted in a drop in stock price from $[***] on [***] to $[***] on [***] after the announcement was made, which represents an approximate [***]% decrease in stock price.

in the Preliminary IPO Price Range over the Estimated Equity Fair Value Per Share. For example, market conditions for initial public offerings generally have been stronger than in recent years, as seen in the recent offering of Twitter, Inc. Additionally, it was announced on November 11, 2013 that a comparable company included in the Company's September 30, 2013 valuation, ViroPharma Inc., is to be acquired by Shire plc, who is one of the Company's existing investors, for $4.2 billion. Shire will pay $50 per share in cash, which represents a 27.0% increase over the closing price of ViroPharma's stock on November 8, 2013 (the last trading day before the announcement of the acquisition), which was $39.38, and a 64.1% increase over the closing price of ViroPharma's stock on September 12, 2013 (the trading day before ViroPharma's stock price increased on potential acquisition rumors), which was $30.47. For this acquisition, Shire is paying approximately 58 times EBITDA for ViroPharma; by comparison, buyers paid a median of 23 times EBITDA for biotechnology companies in transactions valued at more than $100 million in the past five years.

Inherent Discounting of Hybrid Method Analysis

The final factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Equity Fair Value Per Share is that the Preliminary IPO Price Range necessarily assumes only a single successful liquidity event, the IPO. The hybrid method, on the other hand, also considers another non-IPO/remain private scenario, which inherently decreases the Estimated Equity Fair Value Per Share, as this method does not only assume a single successful IPO liquidity event. The hybrid method also involves the application of a discount for lack of marketability to reflect the ownership in an enterprise that does not have a marketplace for sales and/or transfers, while the Preliminary IPO Price Range does not, as an active trading market for the common stock will exist following the IPO. As a result, the Preliminary IPO Price Range was neither reduced by the expected future business values (discounted to present value) from other potential future liquidity events nor discounted for a lack of marketability.

CONCLUSION

The Company has historically determined the estimated fair value per share of its common stock consistent with the guidance set forth in the AICPA Practice Guide, including the OPM, and later the hybrid, methods, which are both accepted valuation methods under the AICPA Practice Guide. The Company believes that the probability weighting of each potential liquidity event used in its hybrid method analysis as of September 30, 2013, and relied upon in part in determining the Estimated Equity Fair Value Per Share as of November 1, 2013, was reasonable at those times, in light of the Company's stage of clinical development, the Company's financial position and need for additional capital, external market conditions affecting the biotechnology and pharmaceutical industry, 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. As a result, the Company believes that the deemed per

share fair values used as the basis for determining stock-based compensation in connection with its stock option grants have been reasonable and appropriate.

* * * * *

We thank you in advance for your consideration of the foregoing. If you have any questions, please do not hesitate to contact me.

Very truly yours,

/s/ Lisa M. Kahle

Lisa M. Kahle

cc: Emil D. Kakkis, Ultragenyx Pharmaceutical Inc.
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UGNX-009