

**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 HIGHLIGHTED IN THIS LETTER.**

June 1, 2018

**FOIA Confidential Treatment Request  
Pursuant to Rule 83 by AVROBIO, Inc.**

**VIA FEDERAL EXPRESS AND EDGAR**

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549  
Attention: Dorrie Yale

**Re: AVROBIO, Inc.  
Registration Statement on Form S-1  
File No. 333-225213  
CIK No. 0001681087**

Dear Ms. Yale:

This letter is being submitted on behalf of AVROBIO, Inc. (the "Company") to supplement the Company's prior responses to the staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") with respect to the Company's Registration Statement on Form S-1 filed on May 25, 2018.

On behalf of the Company, we are supplementally providing 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 (before giving effect to a contemplated reverse stock split of the Company's common stock in connection with the offering), and a discussion of the factors that the Company believes led to the increase in the value of its common stock between the recent valuations of its common stock and the estimated price range for the offering, attached hereto as Exhibit A.

2. For the Staff's convenience, a table summarizing stock options granted between June 1, 2017 and the date hereof, which table reflects the issuance of options to purchase shares of common stock granted by the Company, and which the Company has included in the Registration Statement, attached hereto as Exhibit B.
3. Proposed language 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 valuations as of March 31, 2017, August 31, 2017, October 24, 2017, January 31, 2018 and March 31, 2018, and the midpoint of the estimated price range for this offering (before giving effect to a contemplated reverse stock split of the Company's common stock in connection with the offering). The Company expects that such disclosure would be generally consistent with the currently contemplated disclosure attached hereto as Exhibit C.

The Company advises the Staff that the general approach taken by the Company in determining the fair value of its common stock, including as of March 31, 2017, which the Company's board of directors considered for stock option grants on June 13, 2017, June 26, 2017, July 10, 2017 and July 17, 2017, as of August 31, 2017, which was used for the retrospective fair value assessment of the stock option grants on August 28, 2017, as of October 24, 2017, which was used for the retrospective fair value assessment of the stock option grants on October 4, 2017, October 17, 2017 and October 24, 2017, and as of March 31, 2018, which was used for the retrospective fair value assessment of the stock option grants on March 16, 2018, are set forth beginning on page 81 of the prospectus included in the Registration Statement.

As described in the Registration Statement, the Company's common stock valuation as of March 31, 2017 was prepared using the option-pricing method ("OPM"). The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to members or stockholders exceed the value of the preferred stock liquidation preference at the time of the liquidity event, such as a strategic sale or a merger. The future value of the common stock is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at an indication of value for the common stock. For the August 31, 2017, October 24, 2017, January 31, 2018 and March 31, 2018 valuations, the Company used a hybrid method, which is a hybrid between the OPM and the probability-weighted expected return method ("PWERM"). The hybrid method estimates the probability-weighted value across multiple scenarios but uses the OPM to estimate the allocation of value within at least one of the scenarios. The Company made this change as greater certainty developed regarding a possible liquidity event. The PWERM methodology relies on a forward-

looking analysis to predict the possible future value of a company. Under this method, discrete future outcomes, such as an initial public offering (“IPO”), non-IPO scenarios, and a merger or sale are weighted based on the Company’s estimate of the probability of each scenario. In its application of the hybrid method, the Company considered an IPO scenario under the PWERM framework, and a non-IPO scenario modeled using an OPM to reflect the full distribution of possible non-IPO outcomes. The hybrid method is useful when certain discrete future outcomes can be predicted, but also accounts for uncertainty regarding the timing or likelihood of specific alternative exit events.

#### **March 31, 2017 Valuation**

The fair value of the Company’s common stock of \$0.22 per share as of March 31, 2017 was determined by the Company’s board of directors with the assistance of an independent third-party valuation firm. This valuation was used to support the fair value of the Company’s common stock with respect to stock options granted on June 13, 2017, June 26, 2017, July 10, 2017 and July 17, 2017. This valuation utilized the market approach (recent transaction method) to obtain the equity value of the Company. The valuation utilized the OPM to arrive at a common stock valuation before discounts. A discount for lack of marketability of 36% was then applied to the common stock value.

#### **August 31, 2017 Valuation**

The fair value of the Company’s common stock of \$0.53 per share as of August 31, 2017 was retrospectively determined with the assistance of an independent third-party valuation firm. This valuation was used for the retrospective fair value assessment of the stock option grants on August 28, 2017. This valuation utilized the hybrid method, which considered the value of the Company’s common stock in both IPO and non-IPO scenarios. The present value of the Company’s common stock in an IPO scenario was calculated based on metrics observed from then-recent IPOs in the biotechnology industry. The value of the Company’s common stock in a non-IPO scenario was calculated using the OPM. The valuation assumed a 10% probability of an IPO and a 90% probability of a non-IPO scenario. A discount for lack of marketability of 20% and 30% was applied to the IPO and non-IPO scenarios, respectively.

#### **October 24, 2017 Valuation**

The fair value of the Company’s common stock of \$0.99 per share as of October 24, 2017 was retrospectively determined with the assistance of an independent third-party valuation firm. This valuation was used for the retrospective fair value assessment of the stock option grants on October 4, 2017, October 17, 2017 and October 24, 2017. This valuation utilized the hybrid method, which considered the value of the Company’s common stock in both IPO and non-IPO scenarios. The present value of the Company’s common stock in an IPO scenario was calculated based on metrics observed from then-recent IPOs in the biotechnology industry. The value of the Company’s common stock in a non-IPO scenario was calculated using the OPM. The

valuation assumed a 15% probability of an IPO and an 85% probability of a non-IPO scenario. A discount for lack of marketability of 17% and 25% was applied to the IPO and non-IPO scenarios, respectively.

#### **January 31, 2018 Valuation**

The fair value of the Company's common stock of \$1.21 per share as of January 31, 2018 was determined by the Company's board of directors with the assistance of an independent third-party valuation firm. This valuation was used to support the exercise prices of the Company's common stock with respect to options granted on March 16, 2018, which grant date fair value of the common stock was retrospectively adjusted through the March 31, 2018 valuation. This valuation utilized the hybrid method, which considered the value of the Company's common stock in both IPO and non-IPO scenarios. The present value of the Company's common stock in an IPO scenario was calculated based on metrics observed from then-recent IPOs in the biotechnology industry. The value of the Company's common stock in a non-IPO scenario was calculated using the OPM. The valuation assumed a 25% probability of an IPO and a 75% probability of a non-IPO scenario. A discount for lack of marketability of 15% and 25% was applied to the IPO and non-IPO scenarios, respectively.

#### **March 31, 2018 Valuation**

The fair value of the Company's common stock of \$1.46 per share as of March 31, 2018 was determined with the assistance of an independent third-party valuation firm. This valuation was used for the retrospective fair value assessment of the stock option grants on March 16, 2018. This valuation utilized the hybrid method, which considered the value of the Company's common stock in both IPO and non-IPO scenarios. The present value of the Company's common stock in an IPO scenario was calculated based on metrics observed from then-recent IPOs in the biotechnology industry. The value of the Company's common stock in a non-IPO scenario was calculated using the OPM. The valuation assumed a 50% probability of an IPO and a 50% probability of a non-IPO scenario. A discount for lack of marketability of 12% and 25% was applied to the IPO and non-IPO scenarios, respectively.

The weighting attributed to the IPO scenarios in each of the valuations above reflected assessments as to the likelihood of an IPO and the uncertainty concerning whether investors might be receptive to making an investment in the Company. The Company also considered macroeconomic and overall market conditions, including the Company's subjective assessment of market conditions for IPOs of companies similarly situated to the Company and the Company's subjective assessment as to the likelihood of successfully executing an IPO in the coming months, among other factors.

The Company respectfully requests that the Staff return to us this letter and the information provided pursuant to Exhibits A, B and C 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, B and C of this letter and has submitted a separate request for confidential treatment in accordance therewith to the Commission's Office of Freedom and Information Privacy Act Operations.

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) 570-1483.

Sincerely,

/s/ James Xu

James Xu

Goodwin Procter LLP

cc: Rolf Sundwall, *United States Securities and Exchange Commission*  
Jim Rosenberg, *United States Securities and Exchange Commission*  
Suzanne Hayes, *United States Securities and Exchange Commission*  
Geoff MacKay, *AVROBIO, Inc.*  
Katina Dorton, *AVROBIO, Inc.*  
Arthur R. McGivern, *Goodwin Procter LLP*

Exhibit A

The Company supplementally advises the Staff that the estimated price range for the common stock in the Company's proposed initial public offering ("IPO") is between \$[\*\*\*] to \$[\*\*\*] per share. Please note that while the Company expects to effect a reverse stock split prior to the initial public offering, the price range above does not reflect the impact of the anticipated reverse stock split. 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.

With respect to the price range set forth above, the Company notes that, as is typical in initial public offerings, the estimated price range for its offering was not derived using a formal determination of fair value, but was determined based upon discussions between the Company and the underwriters. Among the factors considered in setting the estimated range were prevailing market conditions, estimates of the Company's business potential, progress in its research and development programs and developments in its business, the general condition of the securities market and the market prices of, and demand for, publicly-traded common stock of generally comparable companies.

In addition, the Company believes the difference in value reflected between the estimated price range and the determination of the fair value of its common stock as of March 31, 2018 is primarily the result of the following factors:

- Significant progress continued in the ongoing investigator-sponsored Phase 1 clinical trial of AVR-RD-01 for Fabry disease. For example, the Company received twelve-month enzyme activity and vector copy number ("VCN") data as well as 14-month bone marrow clone and VCN data from the first patient in the trial, and three-month enzyme activity and VCN data from the second patient in the trial. In addition, consent was received from the third patient to participate in the trial.
- Significant progress was also made in the Company's planned Phase 2 clinical trial of AVR-RD-01 for Fabry disease. For example, following approval of the clinical trial application ("CTA") from Health Canada in the fourth quarter of 2017, the Company initiated and opened centers in two participating countries. The Company also

determined the timeframe for the planned commencement of dosing in this trial, which is expected to occur in [\*\*\*].

- The outcome from the Company's pre-CTA meeting with Health Canada related to its Gaucher program was positive, and the Company completed the data package for chemistry, manufacturing and controls, and pre-clinical and clinical. The Company continues to prepare to file its CTA and commence dosing in its planned clinical trial for the Gaucher program.
- The Company advanced the readiness of its manufacturing plans and engaged contract manufacturing organizations in Australia for the production of its drug product. In addition, the Company completed optimization of its new LV2 vector and commenced comparability studies of LV2 versus its existing LV1 vector.
- The Company continued efforts to recruit additional members to join its Board of Directors. Following the appointments of industry veterans Ian Clark and Annalisa Jenkins in January and March 2018, respectively, the Company bolstered its Board of Directors with the recent appointment of Phil Donenberg as a director nominee.
- The Company took actions to prepare for a potential IPO, including conducting an organizational meeting with the Company's management, underwriters and advisers on March 5, 2018.
- On April 6, 2018, the Company confidentially submitted its Draft Registration Statement on Form S-1 for its initial public offering. Subsequently, the Company responded to the SEC and publicly filed its registration statement for its IPO with the SEC on May 25, 2018.
- In April 2018, the Company applied for the listing of its common stock on The Nasdaq Global Market.
- In April 2018, the Company conducted "testing the waters" meetings with prospective investors and the Company received favorable feedback in late April, as a result of which the Company elected to continue with the potential IPO.
- Since January 2018, at least six biotechnology companies successfully completed initial public offerings, suggesting a potentially favorable market for companies similar to the Company in pursuing and completing initial public offerings.
- The valuation used to support the fair value of the grants on June 13, 2017, June 26, 2017, July 10, 2017 and July 17, 2017 did not consider an IPO scenario, and applied a discount for lack of marketability of 36%. The valuation used for the retrospective fair value assessment of the stock option grants on August 28, 2017 considered an IPO and non-IPO scenario to which probability weightings of 10% and 90% were assigned, respectively, and discounts for lack of marketability of 20% and 30% were applied, respectively. The valuation used for the retrospective fair value assessment of the stock option grants on October 4, 2017, October 17, 2017 and October 24, 2017 considered an IPO and non-IPO scenario to which probability weightings of 15% and 85% were assigned, respectively, and discounts for lack of marketability of 17% and 25% were applied, respectively. The valuation used to support the exercise prices of the grants on March 16, 2018 considered an IPO and non-IPO scenario, to which probability

weightings of 25% and 75% were assigned, respectively, and discounts for lack of marketability of 15% and 25% were applied, respectively. The valuation used for the retrospective fair value assessment of the stock option grants on March 16, 2018 considered an IPO and non-IPO scenario to which probability weightings of 50% and 50% were assigned, respectively, and discounts for lack of marketability of 12% and 25% were applied, respectively. The consideration of different liquidity event scenarios, including the weighting of the likelihood of an IPO, accounts for some but not all of the difference between the estimated price range for the common stock in the IPO and the fair value of the Company's common stock at the recent grant dates. In addition, the estimated price range for the IPO necessarily assumes that the IPO has occurred and that a public market for the Company's common stock has been created, and therefore excludes any discount for lack of marketability of the Company's common stock.

- The Company's currently outstanding convertible preferred stock has substantial economic rights and preferences superior to the Company's common stock. The estimated price range assumes the conversion of all of the Company's outstanding convertible preferred stock to common stock upon the completion of the IPO and the corresponding elimination of such superior economic rights and preferences.
- The proceeds of a successful IPO would substantially strengthen the Company's balance sheet by increasing its cash and cash equivalents. Additionally, the completion of the IPO would provide the Company with access to the public company debt and equity markets and a lower cost of capital following the IPO, and is expected to increase the attractiveness of the Company's equity as a currency to raise capital, compensate employees and other strategic transactions. These projected improvements in the Company's financial position influenced the estimated price range described above.
- The price that investors are willing to pay in the IPO, for which the price range is intended to serve as an estimate, may take into account other factors that have not been expressly considered in prior valuations of the Company's common stock, but are significant to investors in their own subjective and qualitative assessment of the Company, and thus may not be objectively determinable or quantifiable under the above-described valuation models.
- In the public markets, the Company believes there are investors who may apply more qualitative valuation criteria to certain of the Company's assets than the above-described valuation methods applied in the historical valuations of the Company's common stock.



Exhibit B

The following table sets forth by grant date the number of shares subject to stock options granted since January 1, 2017; the per share exercise price of the options, the fair value of common stock per share on each grant date, and the per share estimated fair value of the options:

<u>Date of Issuance</u>	<u>Number of Shares Subject to Options Granted</u>	<u>Per Share Exercise Price of Options</u>	<u>Fair Value per Common Share on Grant Date</u>
June 13, 2017	796,822	\$ 0.22	\$ 0.22
June 26, 2017	16,666	\$ 0.22	\$ 0.22
July 10, 2017	35,224	\$ 0.22	\$ 0.22
July 17, 2017	50,320	\$ 0.22	\$ 0.22
August 28, 2017 <sup>(1)</sup>	654,170	\$ 0.22	\$ 0.53
October 4, 2017 <sup>(2)</sup>	35,000	\$ 0.22	\$ 0.99
October 17, 2017 <sup>(2)</sup>	10,000	\$ 0.22	\$ 0.99
October 24, 2017 <sup>(2)</sup>	201,396	\$ 0.22	\$ 0.99
March 16, 2018 <sup>(3)</sup>	3,114,710	\$ 1.21	\$ 1.46

- (1) At the time of the option grants in August 2017, our board of directors determined that the fair value of our common stock of \$0.22 per share calculated in the contemporaneous valuation as of March 31, 2017 reasonably reflected the per share fair value of one share of our common stock as of the grant date. However, as described below, the fair value of our common stock at this date was adjusted to \$0.53 per share in connection with a retrospective fair value assessment for financial reporting purposes.
- (2) At the time of the option grants in October 2017, our board of directors determined that the fair value of our common stock of \$0.22 per share calculated in the contemporaneous valuation as of March 31, 2017 reasonably reflected the per share fair value of one share of our common stock as of the grant date. However, as described below, the fair value of our common stock at the date of these grants was adjusted to \$0.99 per share in connection with a retrospective fair value assessment for financial reporting purposes.
- (3) At the time of the option grants in March 2018, our board of directors determined that the fair value of our common stock of \$1.21 per share calculated in the contemporaneous valuation as of January 31, 2018 reasonably reflected the per share fair value of one share of our common stock as of the grant date. However, in connection with the preparation of the Company's unaudited condensed consolidated financial statements for the three months ended March 31, 2018, the fair value of our common stock at the date of these grants was adjusted to \$1.46 per share as a result of a contemporaneous valuation performed as of March 31, 2018.

Exhibit C

We and our underwriters determined the estimated price range set forth on the cover of this preliminary prospectus, which is \$[\*\*\*] to \$[\*\*\*] per share. In comparison, our estimate of the fair value of our common stock was \$0.22 per share at June 13, 2017, June 26, 2017, July 10, 2017 and July 17, 2017, which was determined by our board of directors with the assistance of a third-party valuation of our common stock as of March 31, 2017. Our estimate of the fair value of our common stock as of August 28, 2017 was retrospectively adjusted with the assistance of a third-party valuation of our common stock as of August 31, 2017. Our estimate of the fair value of our common stock as of October 4, 2017, October 17, 2017 and October 24, 2017 was retrospectively adjusted with the assistance of a third-party valuation of our common stock as of October 24, 2017. Our estimate of the fair value of our common stock was \$1.21 at March 16, 2018, which was determined by our board of directors with the assistance of a third-party valuation of our common stock as of January 31, 2018, subsequently retrospectively adjusted to \$1.46 with the assistance of a third-party valuation of our common stock as of March 31, 2018.

These valuations utilized the hybrid method described in “—Determination of Fair Value of Common Stock.” The valuation for our June 13, 2017, June 26, 2017, July 10, 2017 and July 17, 2017 stock option grants did not consider an initial public offering, or IPO, scenario, and reflected a discount for lack of marketability of 36%. The valuation used for the retrospective fair value assessment of our August 28, 2017 option grants attributed a 10% probability to an IPO scenario and a 90% probability of a non-IPO scenario and reflected a discount for lack of marketability of 20% and 30% to the IPO and non-IPO scenario, respectively. The valuation used for the retrospective fair value assessment of our October 4, 2017, October 17, 2017 and October 24, 2017 option grants attributed a 15% probability to an IPO scenario and a 85% probability of a non-IPO scenario and reflected a discount for lack of marketability of 17% and 25% to the IPO and non-IPO scenario, respectively. The valuation used for the retrospective fair value assessment of our March 16, 2018 option grants attributed a 50% probability to an IPO scenario and a 50% probability of a non-IPO scenario and reflected a discount for lack of marketability of 12% and 25% to the IPO and non-IPO scenario, respectively. In addition to quantitative analysis from third-party valuations of our common stock, we also considered macro-economic and market conditions, including our subjective assessment of market conditions for initial public offerings of companies similarly situated to ours and our subjective assessment as to the likelihood of successfully executing an initial public offering in the coming months, among other factors.

We note that, as is typical in initial public offerings, the estimated 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 estimated range were prevailing market conditions, estimates of our business potential, progress in our research and development programs and developments in our business, the general condition of the securities market and the market prices of, and demand for, publicly-traded common stock of generally comparable companies.