

April 27, 2016

VIA FACSIMILE, EDGAR AND FEDERAL EXPRESS

United States Securities and Exchange Commission
Division of Corporation Finance
Mail Stop 4720
100 F Street, N.E.
Washington, D.C. 20549
Attention: Christina Thomas

RE: Intellia Therapeutics, Inc.
Registration Statement on Form S-1 (the "Registration Statement")
File No. 333-210689
CIK No. 0001652130

Dear Ms. Thomas:

This letter is being submitted on behalf of Intellia Therapeutics, Inc. (the "Company") to supplementally provide the Staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") with additional information with respect to the above-referenced Registration Statement that was filed with the Commission on April 11, 2016 and to update certain supplemental information provided in the letter sent on behalf of the Company to you on April 22, 2016 (the "April 22 Letter").

In the April 22 Letter, the Company advised the Staff that its board of directors' determination of the fair value of the Company's common stock on January 29, 2016 accounted for, among other things, the weighted probability at that date of multiple potential outcomes, some of which would have resulted in a lower value of the Company's common stock than an initial public offering. Specifically, page 3 of the April 22 Letter states that the January 29, 2016 third-party valuation of the Company's common stock considered by the Company's board of directors included probability weightings for a near-term initial public offering, longer-term initial public offering, merger and acquisition, and dissolution scenarios of "45%, 15%, 10% and 20%, respectively."

The Company wishes to advise the Staff that the actual probability weightings included in the January 29, 2016 third-party valuation for a near-term initial public offering, longer-term initial public offering, merger and acquisition, and dissolution scenarios were and are in fact 45%, 15%, 20% and 20%, respectively.

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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) 570-1447 or Arthur McGivern at (617) 570-1971.

Sincerely,

/s/ William D. Collins

William D. Collins

Enclosures

cc: Nesson Bermingham, Ph.D., *Intellia Therapeutics, Inc.*
José E. Rivera, Esq., *Intellia Therapeutics, Inc.*
Sapna Srivastava, Ph.D. *Intellia Therapeutics, Inc.*
Nicole Heifner, *Intellia Therapeutics, Inc.*
Arthur R. McGivern, Esq., *Goodwin Procter LLP*