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December 7, 2020

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-6010

Attention: Ada Sarmento
Suzanne Hayes
Jenn Do
Jeanne Baker

Re: **4D Molecular Therapeutics, Inc.**
Registration Statement on Form S-1
Filed November 17, 2020
File No. 333-250150

Ladies and Gentlemen:

4D Molecular Therapeutics, Inc. (the "***Company***") has submitted to the U.S. Securities and Exchange Commission (the "***Commission***") on the date hereof Amendment No. 1 to its Registration Statement on Form S-1 (the "***Registration Statement***"). The Company previously submitted to the Commission a Registration Statement on Form S-1 (File No. 333-250150) on November 17, 2020 (the "***Prior Filing***"). The Registration Statement has been revised to reflect the Company's responses to the comment letter to the Prior Filing received on December 3, 2020 from the staff of the Commission (the "***Staff***"), and we are hereby providing the Company's responses to the Staff's letter.

For ease of review, we have set forth below each of the numbered comments of the Staff's letter in bold type followed by the Company's responses thereto.

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Prospectus Summary
Our Therapeutic Vector Evolution Platform, page 2

1. **We note your revisions in response to prior comment 4. Please revise your disclosure on pages 2 and 118 where you discuss your head-to-head comparisons with conventional AAV vectors to state, if true, that you have not conducted any clinical studies in patients comparing your targeted and evolved vectors to conventional AAV vectors. Please also revise your disclosure on pages 2 and 118 that you "expect" to demonstrate the superior capabilities of your targeted and evolved vectors and product candidates as you advance through clinical trials to remove the expectation regarding how your vectors and product candidates will perform in clinical trials as such statements are speculative.**

   Response: The Company respectfully acknowledges the Staff's comment and has revised the disclosure on pages 2 and 118 of the Registration Statement and throughout the Registration Statement where applicable.

Our Product Candidate Pipeline, page 3

2. **We note the added table depicting your most advanced discovery and research programs. Additionally, we note that your filing does not include a discussion of 4D-3XX or 4D-7XX, which implies that these programs are not sufficiently material to your operations to warrant discussion. Please delete the references to these programs from your summary.**

   Response: The Company respectfully acknowledges the Staff's comment and has removed the references to these programs on page 3 of the Registration Statement and throughout the Registration Statement where applicable.

3. **We note your response to comment 7 and believe TVP and Lead Optimization should be depicted together under a column heading such as discovery or research and development. A textual discussion of the program is a more appropriate place to make the distinctions regarding different tasks within a particular phase.**

   Response: The Company respectfully acknowledges the Staff's comment and has revised the disclosure on pages 3, 119, and 147 of the Registration Statement and throughout the Registration Statement where applicable.

Business
Competition and Differentiation: AAV Gene Therapy for wet AMD and Diabetic Retinopathy, page 155

4. **We note your response to prior comment 12. Please revise your statement that 4D-150 would be the only AAV gene therapy asset in wet AMD and DR that has shown**

superior transduction on human retinal cells ex vivo versus conventional AAV vectors such as AAV2 to clarify, if true, that your statement is based solely on in vitro studies you conducted comparing R100 to AAV2 discussed on page 138.

Response: The Company respectfully acknowledges the Staff's comment and has revised the disclosure on pages 153 and 154 of the Registration Statement and throughout the Registration Statement where applicable.

Principal Stockholders, page 222

5. Please revise your disclosure to identify the natural person or persons who have voting and investment control of the shares held by the entities affiliated with BVF.

Response: The Company respectfully acknowledges the Staff's comment and has revised the disclosure on page 223 of the Registration Statement and throughout the Registration Statement where applicable.

10. Redeemable Convertible Preferred Stock
Funding Agreement with CFF (unaudited) page F-39

6. We note the $10.0 million received from CFF is to "be used to advance the development program for 4D-710, the Company's lead product in cystic fibrosis, or any other therapeutic approved by the Program Advisory Group ("PAG") to alleviate pulmonary complications of cystic fibrosis". With reference to the specific terms of the Funding Agreement, please address the need to separately classify the $10.0 million as restricted cash. Refer to Rule 5-02.1 of Regulation S-X.

Response: The Company acknowledges the Staff's comment and respectfully notes that Rule 5-02.1 of Regulation S-X requires separate disclosure of cash or cash items "which are restricted as to withdrawal or usage." In response to the Staff's comments, the Company notes that $10.0 million received from the Cystic Fibrosis Foundation ("***CFF***") does not include any cash that is restricted as to withdrawal or usage.

The terms of the Company's funding agreement with CFF (the "***CFF Agreement***") do not require the Company to place the proceeds into a restricted bank account and do not impose any restrictions on the use of any bank account balances in order to comply with the use of proceeds provision of the CFF Agreement. Consequently, the funds the Company received from CFF are not segregated and are not deposited in separate accounts. CFF is not a signatory to any of the Company's accounts.

The Company further advises the Staff that it can, without any contractual limitations, withdraw and use such funds in any way as it deems appropriate to satisfy any and all obligations of the Company. The CFF funds are comingled with all other funds of the Company and are completely fungible with the Company's other funds. All funds from CFF are deposited in the Company's general bank accounts and are available to support its operations. There are no Company imposed limitations with respect to these funds.

Rule 5-02 (1) of Regulation S-X requires that the provisions of any restrictions be described in a note to the financial statements, which the Company has included in Note 10 to the financial statements on page F-40 of the Registration Statement. In addition, in response to the Staff's comment, the Company has clarified that the funds are not restricted as to withdrawal or usage on pages 106, 178, and F-40 of the Registration Statement.

* * *

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We hope the foregoing answers are responsive to your comments. Please do not hesitate to contact me by telephone at (415) 391-0600 or by fax at (650) 463-2600 with any questions or comments regarding this correspondence.

Very truly yours,

/s/ Phillip S. Stoup

Phillip S. Stoup, Esq.
of LATHAM & WATKINS LLP

cc: David Kirn, M.D., 4D Molecular Therapeutics, Inc.
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