August 25, 2020

Stuart M. Falber

+1 617 526 6663 (t)
+1 617 526 5000 (f)
wilmerhale.com
Stuart.Falber@wilmerhale.com

By Electronic Submission

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

Attention: Laura Crotty

Re: **Dyne Therapeutics, Inc.**
Draft Registration Statement on Form S-1
Submitted July 23, 2020
CIK No. 0001818794

Ladies and Gentlemen:

On behalf of Dyne Therapeutics, Inc. (the "Company"), we are responding to the comments contained in the letter dated August 19, 2020 (the "Letter") from the staff (the "Staff") of the Office of Life Sciences in the Division of Corporation Finance of the U.S. Securities and Exchange Commission to Joshua T. Brumm, the Company's President and Chief Executive Officer, relating to the Confidential Draft Registration Statement on Form S-1 referenced above (the "Draft Registration Statement"). In response to the Staff's comments, the Company has revised the disclosure in the Draft Registration Statement and is filing a Registration Statement on Form S-1 (the "Public Registration Statement") with this response letter.

The responses set forth below are based upon information provided to Wilmer Cutler Pickering Hale and Dorr LLP by representatives of the Company. For convenience, the responses are keyed to the numbering of the comments and the headings used in the Letter. Page numbers referred to in the responses reference page numbers in the Public Registration Statement.

On behalf of the Company, we advise you as follows:

Draft Registration Statement on Form S-1 submitted on July 23, 2020

Prospectus summary
Overview, page 1

1. *Please revise the "Overview" section on page 1 to highlight that your operations are preclinical in nature.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 1, 96 and 114 of the Public Registration Statement.

Our portfolio, page 3

2. *We note the inclusion of your Cardiac/Metabolic programs in your pipeline table on page 3. Given the status of development and the limited disclosure on page 116 regarding these programs, it seems premature to highlight these programs prominently in your Summary pipeline table. Accordingly, please revise to remove these programs from the Summary table or advise.*

Response: In response to the Staff's comment, the Company has revised the pipeline table on pages 2, 116 and 125 of the Public Registration Statement to specify that the Company's rare skeletal, cardiac and metabolic muscle disease programs represent pipeline expansion opportunities, consistent with the disclosure immediately above the table, and to remove the progress arrow to avoid any implication that the Company's activities in these areas are similar to its programs in DM1, DMD and FSHD.

Our strategy, page 4

3. *We note your disclosure on page 5 that your strategy is to "rapidly" advance your lead programs in DM1, DMD and FSHD to clinical proof-of-concept and approval. Please revise these statements and any similar disclosure to remove any implication that you will be successful in commercializing your programs in a rapid or accelerated manner as such statements are speculative.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 1, 4, 96, 114, 116, 117 and 125 of the Public Registration Statement.

Use of proceeds, page 85

4. *Please revise to disclose the approximate amount of proceeds that you intend to allocate toward each of the programs you identify in the Summary pipeline table. In your revised disclosure, please indicate how far the proceeds from the offering will allow you to proceed with the continued development of each of your programs.*

Response: In response to the Staff's comment regarding allocation of proceeds among the Company's programs, the Company advises that Staff that all of the Company's current programs are in the preclinical stage of development and the Company currently cannot specify the portion of the proceeds from the offering that will be allocated to each program. As the Company has disclosed on page 86 of the Public Registration Statement, the specific allocation of the net proceeds from the offering will depend on, among other things, results from research and development efforts for each program, the timing and success of preclinical studies in the program and the timing and outcome of regulatory submissions. Based on the Staff's comment and the foregoing, the Company has revised the disclosure on page 86 of the Public Registration Statement to indicate that the Company cannot specify the portion of the net proceeds from the offering and the Company's existing cash and cash equivalents that will be allocated to any specific program and the reasons for the uncertainty.

In response to the Staff's comment regarding how far the proceeds from the offering will allow the Company to proceed with the continued development of each of its programs, the Company advises the Staff that the Company intends to include such disclosure in the use of proceeds section of the preliminary prospectus and final prospectus for the offering and that such disclosure will be placed in the blank space currently marked in the fifth paragraph on page 86 of the Public Registration Statement. The Company advises the Staff that as of the time of filing the Public Registration Statement the Company was not able to estimate how far the offering proceeds and the Company's cash and cash equivalents would allow the Company to advance the development of its programs because the amount of estimated offering proceeds remains uncertain, and accordingly the Company has included a blank space in lieu of such disclosure in that location in the Public Registration Statement.

Business, page 113

5. *Please revise the prospectus to remove any statements that suggest the safety and efficacy of your platforms, as these determinations are the exclusive authority of the FDA or other regulators. For example, we note your statements that in murine and non-human primate studies, you have "effectively delivered" antisense oligonucleotides and phosphorodiamidate morpholino oligomers to genetic targets within muscle tissue*

resulting in "durable, disease-modifying, functional benefit" across multiple indications and disease models, and that your proprietary Fabs are engineered to bind to TfR1 to enable targeted "effective delivery" of nucleic acids.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 2, 114, 121, 122 and 123 of the Public Registration Statement. The Company supplementally advises the Staff that the Company has observed durable, disease-modifying functional benefit in preclinical animal models of disease, and accordingly the Company has modified such disclosure to make clear that such statements with respect to durable, disease-modifying functional benefit are limited to observations in preclinical animal models.

Clinically validated linker, page 114

6. *Please provide support for your statement that the Val-Cit linker has been clinically validated as safe and effective in approved products.*

Response: In response to the Staff's comment, the Company advises the Staff that the Val-Cit linker has been clinically validated in the development of the following approved drugs, each of which utilizes the Val-Cit linker: (i) Adcetris, which is marketed by Seattle Genetics and Takeda and approved by the FDA for use in Hodgkin lymphoma and anaplastic large cell lymphoma indications, (ii) Padcev, which is marketed by Seattle Genetics and Astellas and approved by the FDA for use in urothelial cancer indications, and (iii) Polivy, which is marketed by Genentech and approved by the FDA for use in diffuse large B-cell lymphoma indications.

Our strategy, page 117

7. *We note the following statement: "If our clinical trials are successful, we plan to meet with regulatory authorities to discuss expedited regulatory approval strategies." Please remove this statement from the prospectus, as it implies that expedited approval may be obtained, which is not within the company's control or known at this time.*

Response: In response to the Staff's comment, the Company has revised the disclosure on page 118 of the Public Registration Statement by deleting the specified sentence.

Myotonic dystrophy type 1 (DM1), page 125

8. *The illustration provided on page 125, the second figure on page 129, and the image on page 133 contains text that is illegible. Please revise accordingly.*

Response: In response to the Staff's comment, the Company has provided updated versions of the applicable figures on pages 126, 131 and 136 of the Public Registration Statement.

Intellectual Property, page 143

9. *For the patent applications disclosed on page 144, please revise to provide the identification of all applicable jurisdictions where patents applications are pending.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 146 and 147 of the Public Registration Statement.

License agreement with the University of Mons, page 147

10. *Please disclose when the latest to expire patent is scheduled to expire.*

Response: In response to the Staff's comment, the Company has revised the disclosure on page 150 of the Public Registration Statement.

Financial Statements
Commitments and contingencies
Other contractual obligations, page F-25

11. *We note your disclosure of your agreement with University of Mons on page 147. Please revise your filing to disclose the material terms of the agreement, such as a description of any significant milestones and anticipated patent expiration dates.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages F-25 and F-26 of the Public Registration Statement.

General

12. *Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.*

Response: The Company acknowledges the Staff's request and will provide to the Staff on a supplemental basis under separate cover all such materials that the Company, or anyone authorized to do so on the Company's behalf, presents to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

If you have any further questions or comments, or if you require any additional information, please contact the undersigned by telephone at (617) 526-6663 or facsimile at (617) 526-5000. Thank you for your assistance.

Very truly yours,

/s/ Stuart M. Falber

Stuart M. Falber

cc: Joshua T. Brumm, Dyne Therapeutics, Inc.