

LYRA THERAPEUTICS, INC.
480 Arsenal Way
Watertown, Massachusetts 02472

March 28, 2024

VIA EDGAR TRANSMISSION

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attention: Benjamin Richie

Re: LYRA THERAPEUTICS, INC.

Registration Statement on Form S-3 (Registration No. 333-278163)

To the addressee set forth above:

In accordance with Rule 461 under the Securities Act of 1933, as amended, we hereby request acceleration of the effective date of the Registration Statement on Form S-3 (Registration No. 333-278163) (the "Registration Statement") of Lyra Therapeutics, Inc. (the "Company"). We respectfully request that the Registration Statement become effective as of 4:30 p.m., Eastern Time, on April 1, 2024, or at such later time as the Company or its counsel may orally request via telephone call to the staff. Once the Registration Statement has been declared effective, please orally confirm that event with our counsel, Latham & Watkins LLP, by calling Peter Handrinos at (617) 948-6060 or Wesley Holmes at (617) 948-6027.

If you have any questions regarding the foregoing, please do not hesitate to contact Peter Handrinos at (617) 948-6060 or Wesley Holmes at (617) 948-6027, of Latham & Watkins LLP. Thank you in advance for your consideration.

Sincerely,

LYRA THERAPEUTICS, INC.

By: /s/ Jason Cavalier

Name: Jason Cavalier

Title: Chief Financial Officer

cc: Peter N. Handrinos, Latham & Watkins LLP
Wesley C. Holmes, Latham & Watkins LLP