

Lexeo Therapeutics, Inc.
345 Park Avenue South, Floor 6
New York, New York 10010

October 31, 2023

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549
Attn: Tim Buchmiller, Jason Drory, Eric Atallah and Lynn Dicker

**Re: Lexeo Therapeutics, Inc.
Registration Statement on Form S-1, as amended (File No. 333-274777)
Request for Acceleration of Effective Date**

Ladies and Gentlemen:

Pursuant to Rule 461 of the General Rules and Regulations under the Securities Act of 1933, as amended, Lexeo Therapeutics, Inc. (the “**Company**”) hereby requests that the U.S. Securities and Exchange Commission (the “**Commission**”) accelerate the effective date of the above-referenced Registration Statement on Form S-1 (as amended to date, the “**Registration Statement**”) and declare the Registration Statement effective as of 4:00 p.m. Eastern time, on November 2, 2023, or as soon thereafter as possible, or at such other time as its legal counsel, Cooley LLP, may request by telephone to the staff of the Commission.

Once the Registration Statement has been declared effective, please orally confirm that event with Eric Blanchard of Cooley LLP at (212) 479-6565 or, in his absence, Dayne Brown of Cooley LLP at (212) 479-6712.

Under separate cover, you will receive today a letter from the managing underwriters of the proposed offering joining in the Company’s request for acceleration of the effectiveness of the Registration Statement.

* * *

[*Signature Page Follows*]

Very truly yours,

Lexeo Therapeutics, Inc.

/s/ R. Nolan Townsend

By: R. Nolan Townsend

Title: Chief Executive Officer

cc: Jenny Robertson, Chief Legal and Administrative Officer, Lexeo Therapeutics, Inc.
Eric Blanchard, Cooley LLP
Divakar Gupta, Cooley LLP
Peter Byrne, Cooley LLP
Siavosh Salimi, Paul Hastings LLP
William A. Magioncalda, Paul Hastings LLP