

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

DIVISION OF CORPORATION FINANCE

April 11, 2024

Jenny Robertson Chief Legal and Business Officer Lexeo Therapeutics, Inc. 345 Park Avenue South , Floor 6 New York , New York , 10010

> Re: Lexeo Therapeutics, Inc. Registration Statement on Form S-1 Filed April 9, 2024 File No. 333-278566

Dear Jenny Robertson:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Tamika Sheppard at 202-551-8346 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Megan Baier