

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

November 6, 2023

R. Nolan Townsend Chief Executive Officer Lexeo Therapeutics, Inc. 345 Park Avenue South, Floor 6 New York, NY 10010

Re: Lexeo Therapeutics, Inc.

Registration Statement on Form S-1

Exhibit Nos. 10.8, 10.9, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 10.17, 10.18, 10.19,

10.20, 10.21, and 10.22 Filed November 1, 2023 File No. 333-274777

Dear R. Nolan Townsend:

We have concluded our assessment of your redacted exhibits for compliance with applicable form requirements and will process your supplemental response and related materials in accordance with your request.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Dayne Brown, Esq.