

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

July 19, 2024

Artiva Biotherapeutics, Inc. 5505 Morehouse Drive, Suite 100 San Diego, CA 92121

Re: Artiva Biotherapeutics, Inc.

Amendment No. 1 to Registration Statement on Form S-1

Exhibit Nos. 10.13, 10.16, 10.18 10.19, 10.20, 10.21, 10.25 and 10.26

Filed July 15, 2024 File No. 333-280568

Dear Fred Aslan:

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