

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

March 25, 2024

Mark Andersen Chief Financial Officer FibroBiologics, Inc. 455 E. Medical Center Blvd. Suite 300 Houston, Texas 77598

Re: FibroBiologics, Inc.

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

Filed March 15, 2024 File No. 333-277019

Dear Mark Andersen:

We have reviewed your amended registration statement and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this letter, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our February 26, 2024, letter.

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

Cover Page

1. We note your disclosure in the Plan of Distribution on page 124 that GEM and GYBL are "underwriters" within the meaning of Section 2(a)(11) of the Securities Act. Please disclose that GEM and GYBL are underwriters on the cover page.

General

2. We note your response to comment 3 and re-issue in part. Please disclose whether the Registered Stockholders engaged in any short selling of the company's securities or other hedging activities prior to entering into the GEM SPA.

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Please contact Jimmy (CF) McNamara at 202-551-7349 or Laura Crotty at 202-551-7614 with any other questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Brian Fenske