

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

February 26, 2024

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

Re: FibroBiologics, Inc.
Registration Statement on Form S-1
Filed February 12, 2024
File No. 333-277019

Dear Mark Andersen:

We have conducted a limited review of your 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.

Registration Statement on Form S-1

Cover Page

1. Please revise the cover page to identify the parties comprising the "Registered Stockholders". In this regard we note that the table on page 115 lists only GEM Global Yield LLC SCS under the heading "Registered Stockholders" and no other parties. In the event GEM Global Yield LLC SCS is the only selling stockholder, please clarify this point throughout the prospectus.

Exhibit Index, page II-5

2. Please ensure each exhibit is in the proper text-searchable format. See Item 301 of Regulation S-T. Please re-file the respective exhibits to your registration statement.

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General

- 3. Please revise your prospectus to disclose the following information with respect to the Share Purchase Agreement by and among the company and GEM Global Yield LLC SCS and GEM Yield Bahamas Limited:
 - the material terms of the agreement, including the full discounted price (or formula for determining it) at which GEM will receive the shares.
 - the material risks of an investment in the company and in the offering, including:
 - the dilutive effect of the formula or pricing mechanism on the company's share price;
 - the possibility that the company may not have access to the full amount available to it under the agreement; and
 - o whether an investor can engage in short-selling activities and, if so, how any sales activities after announcement of a put may negatively affect the company's share price.
 - the material market activities of GEM, including:
 - any short selling of the company's securities or other hedging activities that
 GEM may or has engaged in, including prior to entering into the agreement and
 prior to the receipt of any shares pursuant to the terms of the agreement; and
 - how GEM intends to distribute the securities it owns or will acquire.
 - how the provisions of Regulation M may prohibit GEM and any other distribution participants that are participating in the distribution of the company's securities from:
 - engaging in market making activities (e.g., placing bids or making purchases to stabilize the price of the common stock) while the agreement is in effect; and
 - o purchasing shares in the open market while the agreement is in effect.
- 4. We note the company issued a draw-down notice under the GEM SPA to have GEM purchase up to 900,000 shares of common stock at a draw-down threshold price of no less than \$15.00 per share, and that the company submitted a closing notice after 65,447 shares of common stock were purchased in a private placement at \$15.00 per share. Please revise your disclosure, where appropriate, to explain why GEM did not purchase the entire 900,000 shares contained in the draw-down notice.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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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