

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 8-K**

**CURRENT REPORT**

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 13, 2024

**FibroBiologics, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**001-41934**

(Commission  
File Number)

**86-3329066**

(I.R.S. Employer  
Identification Number)

**455 E. Medical Center Blvd.  
Suite 300**

**Houston, Texas 77598**

(Address of principal executive offices and Zip Code)

**(281) 671-5150**

(Registrant's telephone number, including area code)

**Not Applicable**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.00001 per share	FBLG	Nasdaq Global Market

**Item 8.01. Other Events.**

On February 13, 2024, FibroBiologics, Inc. issued a press release presenting preclinical data at the 2024 Keystone Symposia for Systemic Autoimmune and Autoinflammatory Diseases. A copy of the press release is attached as Exhibit 99.1 and is incorporated by reference into this Item 8.01.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

Exhibit 99.1 [Press Release dated February 13, 2024](#)

Exhibit 104 Cover Page Interactive Data File (embedded within the inline XBRL document)

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: February 13, 2024

FibroBiologics, Inc.

By: /s/ Pete O'Heeron

Name: Pete O'Heeron

Title: Chief Executive Officer

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### **FibroBiologics Presents Preclinical Data at the 2024 Keystone Symposia for Systemic Autoimmune and Autoinflammatory Diseases**

HOUSTON, February 13, 2024 /PRNewswire/ – FibroBiologics (Nasdaq: FBLG) (“FibroBiologics”), a clinical-stage biotechnology company focused on the development of therapeutics and potential cures for chronic diseases using fibroblasts and fibroblast-derived materials encompassing 150+ patents issued and pending, presented preclinical data that employs human dermal fibroblast (HDF) spheroids to treat an induced mouse model of psoriasis at the 2024 Keystone Symposia for Systemic Autoimmune and Autoinflammatory Diseases during a poster presentation. See the poster “Exploring a Novel Cell-based Therapy Using Human Dermal Fibroblasts in a Mouse Model of Psoriasis” [here](#) or on the [publications](#) section of the FibroBiologics website.

“As part of our IND-enabling experiments for our early discovery phase psoriasis project, our in vivo animal studies have provided evidence that HDF spheroids have both external effects on measures of psoriasis severity in addition to a direct positive impact on reducing autoimmune inflammation,” said Dr. Hamid Khoja, Chief Scientific Officer at FibroBiologics. “Cognizant of the high degree of psychological and physiological impact of psoriasis on patients, these findings indicate a potentially promising new direction for developing cell therapy-based alternative psoriasis treatments using fibroblast spheroids.”

Psoriasis is an autoimmune inflammatory disorder often characterized by the development of plaques and scales on the skin, which in many individuals may lead to psoriatic arthritis. Psoriasis affects more than eight million adults in the United States alone, and FibroBiologics is investigating the therapeutic potential of HDFs for treating this disorder and providing relief to patients.

In our study using an imiquimod (IMQ)-induced psoriasis model in C57BL/6J mice, we found that a single intravenous administration of HDF spheroids significantly reduced the severity of psoriatic skin lesions, with a 35% decrease in average Psoriasis Area and Severity Index (PASI) score ( $p < 0.0001$ ). Systemic effects were also evident, as HDF spheroid administration ameliorated IMQ-induced changes in spleen size and lymphocyte and monocyte counts.

The ability of HDF spheroids to affect markers of psoriatic inflammation was further explored by co-culturing with human blood-derived monocytes. HDFs inhibited tumor necrosis factor (TNF)- $\alpha$  and interleukin (IL)-17 production in addition to suppressing cytokine-induced dendritic cell maturation by down-regulating CD40, CD80, CD86, and IL-12 and up-regulating inhibitory molecules, including IL-10, IL-1 receptor antagonist (IL-1Ra), and programmed cell death-1 (PD-L1).

For more information, please visit [FibroBiologics’ website](#) or email FibroBiologics at: [info@fibrobiologics.com](mailto:info@fibrobiologics.com).

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### **Cautionary Statement Regarding Forward-Looking Statements**

This communication may contain “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements include information concerning FibroBiologics’ possible or assumed future results of operations, business strategies, debt levels, competitive position, industry environment, potential growth opportunities and the effects of regulation, including whether FibroBiologics will generate returns for stockholders. These forward-looking statements are based on FibroBiologics’ management’s current expectations, estimates, projections and beliefs, as well as a number of assumptions concerning future events. When used in this communication, the words “estimates,” “projected,” “expects,” “anticipates,” “forecasts,” “plans,” “intends,” “believes,” “seeks,” “may,” “will,” “should,” “future,” “propose” and variations of these words or similar expressions (or the negative versions of such words or expressions) are intended to identify forward-looking statements. These forward-looking statements are not guarantees of future performance, conditions or results, and involve a number of known and unknown risks, uncertainties, assumptions and other important factors, many of which are outside FibroBiologics’ management’s control, that could cause actual results to differ materially from the results discussed in the forward-looking statements, including those set forth in the Risk Factors section of FibroBiologics’ Registration Statement for the Direct Offering filed with the SEC. Copies are available on the SEC’s website, [www.sec.gov](http://www.sec.gov). These risks, uncertainties, assumptions and other important factors include, but are not limited to: (a) the occurrence of any event, change or other circumstances that could cause the Registration Statement to not become effective; (b) the ability of FibroBiologics to continue to meet Nasdaq listing requirements; (c) the ability to effectively manage the business as a result of the super-voting proxy given to the Board of Directors. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and FibroBiologics assumes no obligation and, except as required by law, does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. FibroBiologics gives no assurance that it will achieve its expectations.

### **About FibroBiologics:**

Based in Houston, FibroBiologics is a cell therapy, regenerative medicine company developing a pipeline of treatments and potential cures for chronic diseases using fibroblast cells and fibroblast-derived materials. FibroBiologics holds 150+ US and internationally issued patents/patents pending across various clinical pathways, including disc degeneration, orthopedics, multiple sclerosis, wound healing, reversing organ involution, and cancer. FibroBiologics represents the next generation of medical advancement in cell therapy. For more information, visit [www.FibroBiologics.com](http://www.FibroBiologics.com).

### **Investor Relations:**

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