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

## POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3 REGISTRATION STATEMENT NO. 333-273869

## FORM S-3

**REGISTRATION STATEMENT** 

Under

The Securities Act of 1933

# **EVELO BIOSCIENCES, INC.**

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

> 124 Washington Street, Suite 101 Foxborough, Massachusetts 02035 (508) 543-1720 (Address of Principal Executive Offices)

Craig R. Jalbert President and Chief Executive Officer Evelo Biosciences, Inc. 124 Washington Street, Suite 101 Foxborough, Massachusetts 02035 (508) 543-1720 (Name and address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Peter N. Handrinos, Esq. Wesley C. Holmes, Esq. Latham & Watkins LLP 200 Clarendon Street Boston, Massachusetts 02116 Telephone: (617) 948-6000

Approximate date of commencement of proposed sale to the public: Not Applicable

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.  $\Box$ 

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.  $\Box$ 

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

46-5594527 (I.R.S. Employer Identification Number) If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Accelerated filer	
Non-accelerated filer	$\boxtimes$	Smaller reporting company	$\times$
		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 7(a)(2)(B) of the Securities Act.

#### EXPLANATORY NOTE

#### **DEREGISTRATION OF SECURITIES**

This Post-Effective Amendment No. 1 ("<u>Post-Effective Amendment No. 1</u>") filed by Evelo Biosciences, Inc., a Delaware corporation (the "<u>Company</u>"), removes from registration all shares of the Company's common stock, par value \$0.001 per share (the "<u>Common Stock</u>"), registered under the following Registration Statement on Form S-3 (the "<u>Registration Statement</u>") filed with the U.S. Securities and Exchange Commission (the "<u>Commission</u>") that remain unsold thereunder:

• Registration Statement on Form S-3 (No. <u>333-273869</u>), filed with the Commission on August 10, 2023, relating to the offer and sale of shares of Common Stock of the Company as identified from time to time in one or more offerings by the selling securityholders.

As previously reported on November 21, 2023, the board of directors of the Company: (i) determined that it is in the best interests of the Company and its stakeholders that the Company be dissolved in accordance with the Delaware General Corporation Law pursuant to a Plan of Dissolution (the "<u>Dissolution</u>"); and (ii) approved seeking stockholder approval to proceed with the Dissolution pursuant to Delaware law at a special meeting of stockholders and, if approved, file a Certificate of Dissolution with the Secretary of State of the State of Delaware. In connection with the foregoing, the Company has determined to terminate the offerings of securities under the Registration Statements. Accordingly, the Company is filing this Post-Effective Amendment No. 1 to terminate the effectiveness of the Registration Statements, and, in accordance with the undertakings made by the Company in the Registration Statements, to remove from registration any and all of the securities that remain unsold under the Registration Statements as of the date hereof. The Registration Statements are hereby amended, as appropriate, to reflect the deregistration of all such securities.

As no securities are being registered herein, the sole purpose of this filing being to terminate the effectiveness of the Registration Statements and deregister the securities that remain unsold under the Registration Statements, the disclosure requirements for exhibits under Item 601 of Regulation S-K are inapplicable to this filing.

#### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing this Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Foxborough in the Commonwealth of Massachusetts, on January 26, 2024.

#### EVELO BIOSCIENCES, INC.

By: /s/ Craig R. Jalbert

Title: Chief Executive Officer, President and Director