

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
Under
The Securities Act of 1933

Artelo Biosciences, Inc.

(Exact name of Registrant as specified in its charter)

Nevada

(State or other jurisdiction of
incorporation or organization)

33-1220924

(I.R.S. Employer
Identification Number)

**505 Lomas Santa Fe, Suite 160
Solana Beach, CA 92075
(858) 925-7049**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Artelo Biosciences, Inc. 2018 Equity Incentive Plan
(Full title of the plan)

**Gregory D. Gorgas
Chief Executive Officer and President
505 Lomas Santa Fe, Suite 160
Solana Beach, CA 92075
Telephone: (858) 925-7049**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Martin J. Waters
Wilson Sonsini Goodrich & Rosati, P.C.
12235 El Camino Real
San Diego, CA 92130
Telephone: (858) 350-2300
Facsimile: (858) 350-2399**

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. (Check one):

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 to Section 7(a)(2)(B) of the Securities Act.

PART I

INFORMATION REQUIRED IN THE PROSPECTUS

This Registration Statement on Form S-8 (the “Registration Statement”) registers 2,115,051 additional shares of the common stock of Artelo Biosciences, Inc. (the “Registrant”) that may be issued pursuant to the Registrant’s Amended and Restated 2018 Equity Incentive Plan, as amended and restated (the “2018 Plan”).

In accordance with General Instruction E to Form S-8, the contents of the previous Registration Statements on Form S-8 filed by the Registrant with the Securities and Exchange Commission (the “Commission”) on January 15, 2020 (File No. 333-235916), June 25, 2020 (File No. 333-239434), and December 16, 2020 (File No. 333-251387) (the “Previous Form S-8s”) are incorporated by reference into this Registration Statement.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Artelo Biosciences, Inc. (the “Registrant” or “Artelo”) hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the “Commission”):

- Artelo’s Annual Report on Form 10-K for the fiscal year ended August 31, 2021 filed on November 29, 2021;
- Artelo’s Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021 filed on March 21, 2022;
- Artelo’s Current Reports on Form 8-K filed on March 10, 2022 and March 16, 2022; and
- Artelo’s description of its common stock set forth in the registration statement on Form 8-A registering the common stock under Section 12 of the Exchange Act filed on June 21, 2019, including any amendments or reports filed for purposes of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 8. Exhibits.

Exhibit Number	Description
4.1	Specimen Common Stock Certificate of the Registrant (which is incorporated herein by reference to Exhibit 4.1 to the Registrant's previous Registration Statement on Form S-8 (Registration No. 333-235916).
5.1*	Opinion of Fennemore Craig, P.C.
23.1*	Consent of MaloneBailey, LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Fennemore Craig, P.C. (contained in Exhibit 5.1 hereto).
24.1	Power of Attorney (contained on signature page hereto).
99.1+	Artelo Biosciences, Inc. Amended and Restated 2018 Equity Incentive Plan, as amended and Forms of Award Agreement thereunder (which is incorporated herein by reference to Exhibit 99.1 to the Registrant's previous Registration Statement on Form S-8 (Registration No. 333-251387).
107*	Filing Fee Table

+ Indicates management contract or compensatory plan, contract or arrangement.

* Filed herewith

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 on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on April 7, 2022.

ARTELO BIOSCIENCES, INC.

By: /s/ Gregory D. Gorgas
Name: Gregory D. Gorgas
Title: President & Chief Executive Officer

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Gregory D. Gorgas, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments), to this Registration Statement on Form S-8 with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Gregory D. Gorgas</u> Gregory D. Gorgas	President, Chief Executive Officer and Director (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	April 7, 2022
<u>/s/ Connie Matsui</u> Connie Matsui	Director, Chair of the Board	April 7, 2022
<u>/s/ Steven Kelly</u> Steven Kelly	Director	April 7, 2022
<u>/s/ Douglas Blayney</u> Douglas Blayney	Director	April 7, 2022
<u>/s/ R. Martin Emanuele</u> R. Martin Emanuele	Director	April 7, 2022
<u>/s/ Tamara A. Seymour</u> Tamara A. Seymour	Director	April 7, 2022
<u>/s/ Gregory R. Reyes</u> Gregory R. Reyes	Director	April 7, 2022

FENNEMORE.

7800 Rancharrah Parkway
Reno, NV 89511
PH (775) 788-2200 | FX (775) 786-1177
fennemorelaw.com

April 7, 2022

Artelo Biosciences, Inc.
505 Lomas Santa Fe, Suite 160
Solano Beach, CA 92075

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the registration under the Securities Act of 1933, as amended (the "Act"), by Artelo Biosciences, Inc., a Nevada corporation (the "Company"), by means of a registration statement on Form S-8 (as it may be amended and supplemented, the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission"), of 2,115,051 shares (the "Incentive Shares") of common stock, par value \$0.001 per share of the Company (the "Common Stock"), that will be issued pursuant to the Artelo Biosciences, Inc. 2018 Equity Incentive Plan, as amended (the "Plan").

In connection with this opinion, we have examined and relied upon (i) the Registration Statement, (ii) the Plan and (iii) the Company's Articles of Incorporation and Bylaws, each as amended and currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have examined originals or copies of such other corporate records, certificates of corporate officers and public officials and other agreements and documents as we have deemed necessary or advisable for purposes of this opinion letter. We have relied upon the certificates of all public officials and corporate officers with respect to the accuracy of all factual matters contained therein. With respect to the Incentive Shares, we have assumed that at the time of issuance, the Company has sufficient authorized, but unissued shares available to allow for such issuance.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that when Incentive Shares are issued pursuant to the Plan or pursuant to stock options or other instruments that have been issued pursuant to the Plan, such Incentive Shares will be validly issued, fully paid and nonassessable.

Our opinion is limited to the laws of the State of Nevada. We express no opinion as to the effect of the law of any other jurisdiction. Our opinion is rendered as of the date hereof, and we assume no obligation to advise you of changes in law or fact (or the effect thereof on the opinions expressed herein) that hereafter may come to our attention.

FENNEMORE.

April 7, 2022
Page 2

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm therein and in the Prospectus and in any Prospectus Supplement under the caption "Legal Matters." In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Fennemore Craig, P.C.

Fennemore Craig, P.C.

CDOL/Cete

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 18, 2022 with respect to the audited consolidated financial statements of Artelo Biosciences, Inc. (the "Company") for the period ended December 31, 2021.

/s/ MaloneBailey, LLP
www.malonebailey.com
Houston, Texas
April 7, 2022

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share, reserved for issuance pursuant to the Artelo Biosciences, Inc. 2018 Equity Incentive Plan, as amended	2,115,051(2)	\$ 0.465	\$ 983,498.72	\$ 91.17
Total Registration Fee			\$ 983,498.72	\$ 91.17

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933 (the "Securities Act"), as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Artelo Biosciences, Inc. 2018 Equity Incentive Plan, as amended ("2018 Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.
- (2) Estimated solely for purposes of calculating the registration fee on the basis of \$0.465 per share, in accordance with Rule 457(c) and (h) of the Securities Act, based upon the average of the high and low prices of the Registrant's common stock as reported on The Nasdaq Stock market LLC on April 4, 2022.