SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT Under

The Securities Act of 1933

Artelo Biosciences, Inc.

Nevada	7389	33-1220924			
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)			
(Address, including zip code, and telep	888 Prospect Street, Suite 210 La Jolla, CA 92037 (760) 943-1689 Shone number, including area code,	of Registrant's principal executive offices)			
	Gregory D. Gorgas Chief Executive Officer and Presid 888 Prospect Street, Suite 210 La Jolla, CA 92037 Telephone: (760) 943-1689 code, and telephone number, includ				
	Copies to:				
Martin J. Waters Wilson Sonsini Goodrich & Rosat 12235 El Camino Real San Diego, CA 92130 Telephone: (858) 350-2300 Facsimile: (858) 350-2399		Megan N. Gates Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. One Financial Center Boston, MA 02111 Telephone: (617) 348-4443 Facsimile: (617) 542-2241			
Approximate date of commencement of prop Statement.	osed sale to the public: As soon	as practicable after the effective date of this Registration			
If any of the securities being registered on this Fo Act of 1933, check the following box. ⊠	orm are to be offered on a delayed o	or continuous basis pursuant to Rule 415 under the Securities			
If this Form is filed to register additional securiti box and list the Securities Act registration statement numb		462(b) under the Securities Act, please check the following statement for the same offering. ⊠ No. 333-249083			
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.					
If this Form is a post-effective amendment filed pact registration statement number of the earlier effective registration.		ecurities Act, check the following box and list the Securities ffering. \Box			
	efinitions of "large accelerated file	celerated filer, a non-accelerated filer, a smaller reporting er", "accelerated filer", "smaller reporting company" an			
Large accelerated filer Non-accelerated filer ⊠	Accelerated file Smaller reportin Emerging grow	ng company 🗵			
If an emerging growth company, indicate by check any new or revised financial accounting standards provided	2	not to use the extended transition period for complying wit ities Act. \Box			
The Registration Statement shall become effective upo amended.	on filing in accordance with Rule	462(b) promulgated under the Securities Act of 1933, a			

Calculation of Registration Fee

Title of each class of securities to be registered	Prop maxi aggre offer pric	mum egate ring	 nount of gistration fee
Units consisting of shares of Common Stock, par value \$0.001 per share, and warrants to purchase shares of			420.02
Common Stock, par value \$0.001 per share	\$ 1,265	,000.00	\$ 138.02
Common Stock included as part of the Units (2)		-	-
Common Stock issuable upon exercise of the warrants(3)	\$	-	\$ -
Underwriter's warrants (4)	\$ 68	,750.00	\$ 7.50
Common Stock underlying underwriter's warrants (4)	\$	-	\$ -
Total	\$ 1,333	,750.00	\$ 145.52

- (1) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act"). Artelo Biosciences, Inc. previously registered securities with a proposed maximum aggregate offering price of \$14,575,000.00 on a Registration Statement on Form S-1 (Registration No. 333-249083), as amended (the "Related Registration Statement"), and paid a fee of \$1,590.13. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of no more than 20% of the maximum aggregate offering price of the remaining securities eligible to be sold under the Related Registration Statement is hereby registered.
- (2) No separate fee is required pursuant to Rule 457(g) under the Securities Act.
- (3) The aggregate offering price of the Common Stock issuable upon exercise of the warrants being registered on this registration statement is not being increased.
- (4) We have agreed to issue upon the closing of this offering, warrants to Ladenburg Thalmann & Co. Inc. entitling it to purchase up to 5% of the aggregate shares of common stock sold in this offering, excluding shares sold pursuant to our over-allotment option, if any. The exercise price of the warrants is equal to 125% of the public offering price of the common stock offered hereby. The warrants will be exercisable beginning on the effective date of our stockholders' approval of an increase in the number of our authorized shares of common stock in an amount sufficient to permit the exercise in full of the warrants, and will expire on the five (5) year anniversary of the date of the prospectus contained herein.

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

Artelo Biosciences, Inc., or the Company, is filing this registration statement with the Securities and Exchange Commission, or the SEC, pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This registration statement relates to the public offering of securities contemplated by the registration statement on Form S-1, as amended (File No. 333-249083), or the Registration Statement, which was originally filed with the SEC on September 28, 2020 and declared effective on October 8, 2020.

The Company is filing this registration statement for the purpose of registering additional securities of the Company with the proposed maximum aggregate offering price not to exceed \$1,333,750.00. The information set forth in the Registration Statement, including all exhibits thereto and all information incorporated by reference therein, is incorporated by reference in this filing.

The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith or incorporated by reference herein.

EXHIBIT INDEX

Exhibit		Filed
No.	Exhibit Index	Herewith
<u>5.1</u>	Opinion of Fennemore Craig, P.C.	*
<u>23.1</u>	Consent of Independent Registered Public Accounting Firm	*
<u>5.2</u>	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.	*
23.2	Consent of Fennemore Craig, P.C. (included in Exhibit 5.1)	*
23.3	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (included in Exhibit 5.2)	*
24.1*	Power of Attorney (included on the signature page)	

^{*} Previously filed on the signature page to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-249083), originally filed with the Securities and Exchange Commission on September 28, 2020 and incorporated by reference herein.

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-1 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 October 9, 2020.

ARTELO BIOSCIENCES, INC.

By: /s/ Gregory D. Gorgas

Name: Gregory D. Gorgas

Title: President & Chief Executive Officer

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:

Name	Title	Date
/s/ Gregory D. Gorgas Gregory D. Gorgas	President, Chief Executive Officer and Director (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	October 9, 2020
* Connie Matsui	Director, Chair of the Board	October 9, 2020
* Steven Kelly	Director	October 9, 2020
* Douglas Blayney	Director	October 9, 2020
* R. Martin Emanuele	Director	October 9, 2020
* John W. Beck	Director	October 9, 2020
* Pursuant to power of attorney		
By: /s/ Gregory D. Gorgas Gregory D. Gorgas Attorney-in-fact		
	П-2	

300 E. Second Street Suite 1510 Reno, Nevada 89501 (775) 788-2200

Law Offices

Denver (303) 291-3200 Las Vegas (702) 692-8000 Nogales (520) 281-3480 Phoenix (602) 916-5000 Reno (775) 788-2200 Tucson (520) 879-6800

October 9, 2020

Artelo Biosciences, Inc. 888 Prospect Street, Suite 210 La Jolla, CA 92037

Re: Registration on Form S-1 for Artelo Biosciences, Inc.

Ladies and Gentlemen:

We are acting as special Nevada counsel for Artelo Biosciences, Inc., a Nevada corporation (the "Company"), in connection with the registration of additional securities of the Company under a Registration Statement on Form S-1 (the "Registration Statement"), as amended, including a Form S-1MEF, by the Company under the Securities Act of 1933, as amended (the "Act"). The S-1MEF relates to the proposed issuance and sale (collectively, the "Offering") of up to an additional (i) \$1,265,000.00 of units of Company securities ("Units") consisting of shares (the "Offered Shares") of the Company's common stock, par value \$.001 per share (the "Common Stock") and warrants to purchase shares (the "Warrant Shares") of the Company's Common Stock ("Warrants"); (ii) warrants to purchase up to \$68,750.00 of the Company's Common Stock issued to the representative of the several underwriters (the "Representative's Warrants"); and (iii) shares of the Company's Common Stock to be issued upon exercise of the Representative's Warrants (the "Representative's Shares").

We have examined originals or copies of each of the documents listed below:

- 1. The Articles of Incorporation of the Company, as amended, as certified by an officer of the Company as of the date hereof;
- 2. The Bylaws of the Company, as certified by an officer of the Company as of the date hereof;
- 3. The forms of the Warrants and the Representative's Warrants;
- 4. Resolutions of the Board of Directors of the Company, dated as of October 5, 2020 (the "Resolutions"), which, among other things, authorize and empower a pricing committee of the Board of Directors of the Company (the "Pricing Committee"), as certified by an officer of the Company as of the date hereof;

Artelo Biosciences, Inc. Re: Registration of Common Stock October 9, 2020 Page 2

- 5. Resolutions of the Pricing Committee, dated as of October 8, 2020, as certified by an officer of the Company;
- 6. A draft of the Underwriting Agreement in connection with the Offering by and between the Company and Ladenburg Thalmann & Co. Inc. (the "Agreement"); and
 - 7. The Registration Statement.

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.

Without limiting the generality of the foregoing, in our examination, we have, with your permission, assumed without independent verification, that (i) all documents submitted to us as originals are authentic, the signatures on all documents that we examined are genuine, and all documents submitted to us as certified, conformed, photostatic, electronic or facsimile copies conform to the original document; and (ii) all corporate records made available to us by the Company and all public records we have reviewed are accurate and complete. We note that the Board of Directors of the Company has reserved, effective upon (x) the filing in the office of the Secretary of State of the State of Nevada of an amendment to the Company's articles of incorporation which increases the authorized shares of the Company's Common Stock or (y) Shareholder approval and the Board of Directors execution of a reverse stock split of the Company's outstanding Common Stock, in either case such that shares of the Company's Common Stock available for issuance are equal to or greater than the number of shares of Common Stock to be issued pursuant to the Agreement upon exercise of the Warrants and the Representative's Warrants, and we assume that the Company will continue to reserve such number of shares of Common Stock until exercise of all of the Warrants and the Representative's Warrants.

1. Issuance of the Offered Shares has been duly authorized by the Company and, when issued and paid for in accordance with the terms of the Registration Statement, the Agreement, and the resolutions of the Pricing Committee setting the price per share of the Offered Shares, the Offered Shares will be validly issued, fully paid and nonassessable.

Artelo Biosciences, Inc. Re: Registration of Common Stock October 9, 2020 Page 3

- 2. Issuance of the Representative's Warrants has been duly authorized by the Company and, when issued and paid for in accordance with the terms of the Registration Statement, the Agreement, and the resolutions of the Pricing Committee setting the price and the exercise price thereof and of the Representative's Warrants, and the Representative's Warrants will be validly issued.
- 3. Issuance of the Representative's Shares has been duly authorized by the Company and, when issued and paid for in accordance with the terms of the Representative's Warrants, and the Representative's Shares will be validly issued, fully paid and nonassessable.

We express no opinion as to the laws of any jurisdiction other than the laws of the State of Nevada. The opinions expressed above concern only the effect of the laws (excluding the principles of conflict of laws) of the State of Nevada currently in effect. We assume no obligation to supplement this opinion if any applicable laws change after the date of this opinion, or if we become aware of any facts that might change the opinions expressed above after the date of this opinion.

This opinion is issued in the State of Nevada. By issuing this opinion, Fennemore Craig, P.C. (i) shall not be deemed to be transacting business in any other state or jurisdiction other than the State of Nevada and (ii) does not consent to the jurisdiction of any state other than the State of Nevada. Any claim or cause of action arising out of the opinions expressed herein must be brought in the State of Nevada. Your acceptance of this opinion shall constitute your agreement to the foregoing.

Artelo Biosciences, Inc. Re: Registration of Common Stock October 9, 2020 Page 4

We consent to your filing of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement. We further consent to the incorporation by reference of this opinion and consent in any registration statement filed pursuant to Rule 462(b) under the Act with respect to the Common Stock, the Representative's Warrants and the Representative's Shares. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act, the rules and regulations of the Securities and Exchange Commission promulgated thereunder, or Item 509 of Regulation S-K. The opinions expressed in this letter are rendered as of the date hereof, and we express no opinion as to circumstances or events that may occur subsequent to such date. Our opinion is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Common Stock, the Warrants, the Warrant Shares, the Representative's Warrants or the Representative's Shares.

Very truly yours,	
/s/ Fennemore Craig, P.C.	
Fennemore Craig P C	



Wilson Sonsini Goodrich & Rosati Professional Corporation 12235 El Camino Real San Diego, California 92130-3002 o: 858.350.2300 f: 858.350.2399

October 9, 2020

Artelo Biosciences, Inc.

888 Prospect Street, Suite 210

La Jolla, California 92037

Re: Registration Statement on Form S-1 (Reg. No. 333-249083)

Ladies and Gentlemen:

We have acted as counsel to Artelo Biosciences, Inc., a Nevada corporation (the "Company"), in connection with the filing of a registration statement on Form S-1 (Reg. No. 333-249083) filed by the Company pursuant to Rule 462(b) (as amended, the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement relates to the proposed issuance and sale by the Company of up to an additional \$1,265,000 of units, each consisting of one share of its common stock, par value \$0.001 per share ("Shares") and one warrant to purchase one Share (the "Common Stock Warrants") (collectively, the "Units"); (ii) up to an additional \$68,750 in warrants to purchase Shares (the "Underwriter Warrants") and (iii) the Shares issuable upon the exercise of the Underwriter Warrants (the "Underwriter Shares"). The Units, the Warrants, the Underwriter Shares, and the Shares underlying the Units are collectively referred to herein as the "Securities."

In rendering the opinions set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; (iv) each natural person signing any document reviewed by us had the legal capacity to do so; and (v) the certificates representing the Securities will be duly executed and delivered.

We have examined the Registration Statement, including the exhibits thereto, and such other documents, corporate records, and instruments and have examined such laws and regulations as we have deemed necessary for purposes of rendering the opinions set forth herein.

We express no opinion herein as to the laws of any state or jurisdiction other than New York and the federal laws of the United States of America.

Our opinion below is qualified to the extent that they may be subject to or affected by (i) applicable bankruptcy, insolvency, reorganization, moratorium, usury, fraudulent conveyance or similar laws affecting the rights of creditors generally, and (ii) by general equitable principles and public policy considerations, whether such principles and considerations are considered in a proceeding at law or at equity. Furthermore, we express no opinion as to the availability of any equitable or specific remedy, or as to the successful assertion of any equitable defense, upon any breach of any agreements or obligations referred to therein, or any other matters, inasmuch as the availability of such remedies or defenses may be subject to the discretion of a court. We express no opinion as to the enforceability of any indemnification provision, or as to the enforceability of any provision that may be deemed to constitute liquidated damages.

AUSTIN BEIJING BOSTON BRUSSELS HONG KONG LONDON LOS ANGELES NEW YORK PALO ALTO
SAN DIEGO SAN FRANCISCO SEATTLE SHANGHAI WASHINGTON, DC WILMINGTON, DE

WILSON

Artelo Biosciences, Inc. October 9, 2020 Page 2

Based upon and subject to the foregoing, we are of the opinion that when the Underwriter Warrants have been duly executed and delivered by the Company and duly delivered to the purchasers thereof against payment therefor in the circumstances contemplated by the form of the Underwriting Agreement most recently filed as an exhibit to the Registration Statement, they will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement and to the use of our name under the caption "Legal Matters" in the prospectus contained therein. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Sections 7 and 11 of the Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

This opinion letter is given to you solely for use in connection with the offer and sale of the Securities while the Registration Statement is in effect and is not to be relied upon for any other purpose. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Securities or the Registration Statement.

Sincerely,

/s/ WILSON SONSINI GOODRICH & ROSATI

WILSON SONSINI GOODRICH & ROSATI Professional Corporation