

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

FORM S-1
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)

7389

(Primary Standard Industrial
Classification Code Number)

33-1220924

(I.R.S. Employer
Identification Number)

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

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

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

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

Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

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, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) 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 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 pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period with any new or revised accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission acting pursuant to such Section 8(a) may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated March 24, 2026

PRELIMINARY PROSPECTUS



Artelo Biosciences, Inc.

UP TO 4,273,519 SHARES OF COMMON STOCK

This prospectus relates to the resale from time to time by Square Gate Capital Master Fund, LLC - Series 5 ("Square Gate" or the "Selling Stockholder") of up to 4,273,519 shares of our common stock, par value \$0.001 per share (the "Common Stock"), pursuant to the Equity Purchase Agreement, dated as of January 30, 2026 (the "ELOC Purchase Agreement"), consisting of:

- (1) up to 146,199 shares issued or issuable to Square Gate as commitment shares (the "Commitment Shares"), consisting of: (A) 35,342 shares of Common Stock issued to Square Gate, (B) 62,124 shares of Common Stock issuable upon exercise of pre-funded warrants issued to Square Gate at an exercise price of \$0.003 per share (the "Pre-Funded Warrants"), and (C) up to 48,733 shares of Common Stock issuable to Square Gate as True-Up Commitment Shares (as defined below); and
- (2) up to 4,127,320 shares of Common Stock (the "Put Shares") that may be issued and sold by us to Square Gate from time to time pursuant to the ELOC Purchase Agreement at a purchase price equal to: (A) for sales effected through delivery of a regular put notice (each such sale, a "Regular Put"), 95% of the lowest daily volume weighted average price ("VWAP") of our Common Stock during the three consecutive trading days following delivery of such put notice to Square Gate, or (B) for sales effected through delivery of an intraday put notice (each such sale, an "Intraday Put"), 95% of the lowest traded price of our Common Stock during the applicable intraday valuation period.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sales of our Common Stock by Square Gate. However, we may receive up to \$50,000,000 in aggregate gross proceeds from sales of our Common Stock we may elect to make to Square Gate pursuant to the ELOC Purchase Agreement after the date of this prospectus. See the section of this prospectus entitled "*Offering*" for a description of the transactions and the section entitled "*Selling Stockholder*" for additional information about the Selling Stockholder.

Square Gate may sell or otherwise dispose of our Common Stock described in this prospectus in a number of different ways and at varying prices. See "*Plan of Distribution*" for more information about how the Selling Stockholder may sell or otherwise dispose of our Common Stock pursuant to this prospectus. Square Gate is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the "Securities Act").

We will pay the expenses incurred in registering under the Securities Act the offer and sale of our Common Stock to which this prospectus relates by the Selling Stockholder, including legal and accounting fees. See "*Plan of Distribution*."

Our shares of Common Stock are currently listed on The Nasdaq Capital Market tier of The Nasdaq Stock Market LLC ("Nasdaq") under the symbol "ARTL." On March 20, 2026, the closing sale price of shares of our Common Stock was \$7.97.

You should read this prospectus, together with additional information described under the heading "*Where You Can Find More Information*" carefully before you invest in any of our securities.

We are a "smaller reporting company" as defined under the federal securities laws and, as such, we may continue to elect to comply with certain reduced public company reporting requirements in future reports.

Investing in our securities involves a high degree of risk. See "*Risk Factors*" beginning on page 10 of this prospectus and in the other documents that are incorporated by reference into this prospectus before purchasing any of the shares offered by this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is [], 2026

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ABOUT THIS PROSPECTUS

As used in this prospectus, unless the context otherwise requires or indicates, references to “the Company,” “we,” “our,” “ourselves,” “us” and “Artelo” refer to Artelo Biosciences, Inc.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”), under which the Selling Stockholder may, from time to time, sell the securities described in this prospectus in one or more offerings or otherwise described under “*Plan of Distribution*.” We will not receive any proceeds from the sale by the Selling Stockholder of the securities offered by it described in this prospectus.

We may also file a prospectus supplement or post-effective amendment to the registration statement of which this prospectus forms a part that may contain material information relating to these offerings. Such prospectus supplement or post-effective amendment may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or post-effective amendment, you should rely on the prospectus supplement or post-effective amendment, as applicable. Before purchasing any securities, you should carefully read this prospectus, any post-effective amendment, and any applicable prospectus supplement, together with the additional information described under the headings “*Where You Can Find More Information*” and “*Incorporation by Reference*.”

Neither we, nor the Selling Stockholder, have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any post-effective amendment, or any applicable prospectus supplement prepared by or on behalf of us or to which we have referred you. We and the Selling Stockholder take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The Selling Stockholder will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, any post-effective amendment and any applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference or, in each case, any earlier date specified for such information, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference filed with the SEC before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in a document incorporated by reference is inconsistent with a statement in another document incorporated by reference having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus incorporates by reference, and any post-effective amendment or any prospectus supplement may contain or incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we have not independently verified this information, and we are responsible for all information contained in this prospectus. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any post-effective amendment or any prospectus supplement may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “*Risk Factors*” contained in this prospectus, any post-effective amendment and any applicable prospectus supplement, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section entitled “*Where You Can Find More Information*.”

This prospectus contains forward-looking statements that are subject to a number of risks and uncertainties, many of which are beyond our control. Please read “*Cautionary Note Regarding Forward- Looking Statements*” and “*Risk Factors*.”

SUMMARY

This summary is not complete and does not contain all of the information that you should consider before investing in the securities offered by this prospectus. You should read this summary together with the entire prospectus carefully, including "Risk Factors" and our financial statements and the related notes incorporated by reference into this prospectus, before making an investment decision. See "Risk Factors" for a discussion of the risks involved in investing in our securities.

Corporate Overview

We incorporated in the State of Nevada on May 2, 2011, and are presently based in the County of San Diego, California. We are a clinical stage biopharmaceutical company focused on the development and commercialization of therapeutics that target lipid-signaling modulation pathways, including the endocannabinoid system (the "ECS"), a network of receptors and neurotransmitters that form a biochemical communication system throughout the body.

Our product candidate pipeline broadly leverages leading scientific methodologies and balances risk across mechanisms of action and stages of development. Our programs represent a comprehensive approach in utilizing the power and promise of lipid signaling to develop pharmaceuticals for patients with unmet healthcare needs.

We are currently developing a novel, benzimidazole dual cannabinoid (CB) agonist that targets both the CB1 and CB2 peripheral receptors. This synthetic small molecule program is a G protein-coupled receptor ("GPCR") designated ART27.13 and was initially developed by AstraZeneca plc. We are developing ART27.13 as a potential treatment for cancer-related anorexia and it is currently in a Phase 1b/2a trial, titled the Cancer Appetite Recovery Study ("CAREs"). In an interim analysis of the on-going Phase 2a CAREs trial, patients with cancer anorexia receiving ART27.13 demonstrated a mean weight gain of over 6% compared to a 5% loss in the placebo group, while maintaining a safety profile similar to the Phase 1b despite doses up to twice the previous maximum. Currently there is no FDA approved treatment for cancer anorexia cachexia syndrome.

Our second program, ART26.12 is a small molecule and the lead product candidate from our chemical library of inhibitors of fatty acid binding proteins, notably Fatty Acid Binding Protein 5 ("FABP5"). We received U.S. Food & Drug Administration (the "FDA") clearance for our Investigational New Drug ("IND") application for ART26.12 in July 2024 and have completed enrolment to a Phase 1 clinical trial in healthy subjects to support the development towards an agent intended to treat chemotherapy-induced peripheral neuropathy ("CIPN"). In addition, ART26.12 may have broad applications as a cancer therapeutic, as a treatment for dermatologic conditions, such as psoriasis, as a treatment for pain and inflammation, and potential use in anxiety-related disorders, including post-traumatic stress disorder. In June 2025, we announced favorable results from our first-in-human study evaluating ART26.12. The Phase 1 Single Ascending Dose (SAD) study was designed to assess the safety, tolerability, and pharmacokinetics of ART26.12 in healthy volunteers and enrolled 49 subjects. All adverse events (AEs) were mild, transient, and self-resolving. No drug-related AEs were observed in the blinded dataset, and no tolerability issues or safety signals were detected across multiple assessments (vital signs, ECGs, clinical laboratory tests, physical examinations, and visual analogue mood scales). In addition, full dose-exposure profiles were successfully explored. Plasma analysis confirmed dose-dependent, linear absorption across the evaluated range. A wide safety margin was observed between estimated therapeutic plasma concentrations and the highest exposure levels achieved, supporting potential titration for maximum efficacy in future studies. In addition to ART26.12 in CIPN, our extensive library of small molecule inhibitors of Fatty Acid Binding Proteins ("FABPs") has shown therapeutic potential for the treatment of certain cancers, neuropathic and nociceptive pain, psoriasis, and anxiety disorders.

ART12.11 is our wholly owned, proprietary cocrystal composition of cannabidiol (CBD) and tetramethylpyrazine (TMP). Isolated as a single crystalline form, ART12.11 has exhibited better pharmacokinetics and improved efficacy compared to other forms of CBD in nonclinical studies. Greatly enhanced pharmaceutical properties, including physicochemical, pharmacokinetic, and pharmacodynamic advantages have been observed with ART12.11. We believe a more consistent and improved bioavailability profile may ultimately lead to increased safety and efficacy in humans, thus making ART12.11 a preferred CBD pharmaceutical composition. The U.S. issued composition of matter patent for ART12.11 is enforceable until December 10, 2038 and has now been granted or validated in 21 additional countries.

We obtained two of our patent protected product candidates through our in-licensing activities. Our first in-licensed program, ART27.13, is being developed for cancer-related anorexia. ART27.13 is a peripherally-selective high-potency dual CB1 and CB2 full-receptor agonist, which was originally invented at AstraZeneca plc. We exercised our option to exclusively license this product candidate through the NEOMED Institute (“NEOMED”), a Canadian not-for-profit corporation, renamed adMare Bioinnovations (“adMare”) in June 2019, which had obtained rights to ART27.13 from AstraZeneca plc. In Phase 1, single dose studies in healthy volunteers and a multiple ascending dose study in individuals with chronic low back pain conducted by AstraZeneca plc, ART27.13 exhibited an attractive pharmacokinetic and absorption, distribution, metabolism, and excretion profile and was well tolerated within the target exposure range. It also exhibited dose-dependent and potentially clinically meaningful increases in body weight. Importantly, the changes in body weight were not associated with fluid retention or other adverse effects and occurred at exposures without central nervous system (“CNS”) side effects. Discussions with United Kingdom (“UK”), U.S. and Canadian regulators indicated there is a potential pathway for development of ART27.13 for the treatment of cancer-related anorexia, which affects approximately 60% of advanced stage cancer patients.

We commenced enrollment and dosed the first patient in CAREs, our Phase 1b/2a clinical study of cancer-related anorexia with ART27.13 in April 2021 and completed enrolling patients in the Phase 1b during the first quarter of 2023. Data from the Phase 1b stage was used to determine the most effective and safe dose selected as the starting dose for the Phase 2a portion of CAREs. We received approval from the regulatory authorities in the UK, Ireland and Norway to increase the daily dose from the starting dose of 650 micrograms to 1,000 micrograms after 4 weeks and up to 1,300 micrograms initiated at 8 weeks in patients for whom intra-patient dose escalation is expected to be well tolerated. We also received approval from the regulatory authorities to enroll 40 evaluable patients into the Phase 2a stage with a 3:1 randomization of ART27.13 to placebo. We initiated the Phase 2a portion of CAREs during April 2023 with 18 clinical sites across five countries.

As of December 31, 2025, 32 participants have been enrolled. On September 3, 2025, we announced interim results from the Phase 2a CAREs trial. In the interim analysis, 18 evaluable patients—primarily with lung and gastrointestinal cancers not receiving cyclic chemotherapy—were included. After 12 weeks of treatment in patients who were titrated to the top dose evaluated of 1300 micrograms (n=5), ART27.13 demonstrated compelling increases in mean body weight of 6.38% (Standard Deviation or SD 9.50) compared to patients on placebo (n=6) who lost -5.42% (SD 8.17). The maximum weight gain in the ART27.13 group reached 18.5%, versus only 0.4% in placebo. The maximum weight loss in the placebo arm was -17.4%, compared to just -3.0% in the ART27.13 group. Additional benefits were seen in lean body mass, with a +4.23% increase (SD 5.37) in the treatment group versus a -3.15% loss (SD 4.89) in placebo at one month, as well as qualitative improvements in total and weekly activity scores.

Safety results were consistent with prior findings. Among the 32 participants enrolled in the CAREs Phase 2 trial to date, 7 patients (22%) experienced adverse events that may be related to ART27.13. All were mild or moderate, with the exception of a single case of severe malaise, and no drug-related serious adverse events were reported. These data are aligned with safety outcomes observed in Phase 1 of CAREs, supporting ART27.13’s overall favorable tolerability and acceptable safety profile.

Our second in-licensed patented program is being advanced from our platform of small-molecule inhibitors of FABPs, notably FABP5. FABPs are attractive therapeutic targets, however, the high degree of sequence and structural similarities among family members made the creation of drugs targeting specific FABPs challenging. FABP5 is believed to specifically target and regulate one of the body’s endogenous cannabinoids, anandamide (“AEA”). While searching for a FABP5 inhibitor to regulate AEA, researchers at Stony Brook University (“SBU”) discovered the chemistry for creating a large library of compounds which we believe to be highly specific and potent small molecule inhibitors of FABP5 and other isoforms. We licensed the rights to world-wide intellectual property in all fields and certain know-how to these inhibitors from SBU.

Our lead FABP5 inhibitor program is designated ART26.12. Preclinical research with ART26.12 showed evidence of activity in multiple pain models including osteoarthritis, cancer bone pain, and neuropathic pain. Based upon positive preclinical evidence from five separate studies showing promising activity and a differentiated mechanism-of-action for the prevention and treatment of painful neuropathies, including diabetic neuropathy and CIPN, we prioritized CIPN as the initial indication for development of ART26.12. Treatment and/or prevention of CIPN is a significant unmet need, often resulting in anti-cancer treatment delays or discontinuations, and there are currently no approved treatments for CIPN by the regulatory authorities in the U.S., UK or EU. We submitted an IND application for ART26.12 to the FDA on June 10, 2024 and received a study may proceed notice from the FDA on July 8, 2024. First-in-human studies for ART26.12 began in Q4 of 2024 and we successfully completed dosing all 48 healthy volunteers planned for the Phase 1 Single Ascending Dose study at the end of April 2025. In addition to its potential as a synthetic endocannabinoid modulator with development targeting pain, inflammation, dermatologic conditions such as psoriasis, FABP5 is understood to play an important role in lipid signaling and is believed to be an attractive strategy for drug development in oncology. Large amounts of human biomarker and animal model data support FABP5 as an oncology target, including triple negative breast cancer, ovarian cancer, cervical cancer, and castration-resistant prostate cancer. Through our sponsored research we have also subsequently identified a potential role for FABP5 inhibition to treat anxiety disorders, such as Post Traumatic Stress Disorder (“PTSD”). We have been awarded a research grant in Canada to expand on our earlier research at the University of Western Ontario in this new development area.

In addition to our in-licensed programs, we have internal discovery research initiatives which resulted in ART12.11, a proprietary cocrystal composition of CBD and TMP. The crystal structure of CBD is known to exhibit solid polymorphism, or the ability to manifest in different forms. Polymorphism can adversely affect stability, dissolution, and bioavailability of a drug product and thus may affect its quality, safety, and efficacy. Based upon our research, we believe our CBD cocrystal exists as a single crystal form and as such is anticipated to have advantages over other solid forms of CBD that exhibit polymorphism. Emerging data demonstrates potential advantages of this single crystal structure, including improved stability, solubility, and a more consistent absorption profile. We believe these features have contributed to a more consistent and improved bioavailability and pharmacokinetic profile which may ultimately lead to improved safety and efficacy in human therapeutics, as already demonstrated in animal studies.

Presently, we have two U.S. patents, one pending U.S. patent application, six foreign patents (Australia, Brazil, China, Mexico, Japan and Taiwan) and three pending foreign patent applications (Canada, Europe, and South Korea) directed to our cocrystal composition of CBD. Composition claims are generally known in the pharmaceutical industry as the most desired type of intellectual property and should provide for long lasting market exclusivity for our synthetic CBD cocrystal drug product candidate. In addition, due to the reasons outlined above, we believe that our synthetic CBD cocrystal will continue to demonstrate a superior set of pharmaceutical properties compared to non-cocrystal CBD compositions. We plan to develop ART12.11 for multiple potential indications where CBD has shown activity of such anxiety disorders, including PTSD, depression, and other possible uses such as epilepsy and insomnia.

We are developing our product candidates in accordance with traditional regulated drug development standards and expect to make them available to patients via prescription or physician orders only after obtaining marketing authorization from a country’s regulatory authority, such as the FDA. Our management team has experience developing, commercializing, and partnering ethical pharmaceutical products, including several first-in-class therapeutics. Based upon our current management’s capabilities and the future talent we may attract, we plan to retain rights to internally develop and commercialize products; however, we may seek collaborations with partners in the biopharmaceutical industry when a partnering strategy serves to maximize value for our stockholders.

Risk Factor Summary

Investing in our securities involves a high degree of risk. You should carefully consider the risks described in the section entitled “*Risk Factors*” below, as well as other information and risk factors included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, as updated or supplemented on our quarterly reports on Form 10-Q or current reports on Form 8-K, including our financial statements and the related notes, and the section titled “*Management’s Discussion and Analysis of Financial Condition and Results of Operations,*” any of which may be relevant to decisions regarding an investment in or ownership of our securities. The occurrence of any of these risks could have a significant adverse effect on our reputation, business, financial condition, results of operations, growth and ability to accomplish our strategic objectives. We have organized the description of these risks into groupings in an effort to enhance readability, but many of the risks interrelate or could be grouped or ordered in other ways, so no special significance should be attributed to the groupings or order below.

Risks Related to This Offering

- It is not possible to predict the actual number of shares of the Common Stock we will sell under the ELOC Purchase Agreement to Square Gate, or the actual gross proceeds resulting from those sales.
- The sale and issuance of our Common Stock to Square Gate will cause dilution to our existing shareholders, and the sale of Common Stock acquired by Square Gate or the perception that such sales may occur could cause the price of our Common Stock to fall.
- Square Gate will pay less than the then-prevailing market price for the Common Stock, which could cause the price of the Common Stock to decline.
- Our management team will have broad discretion over the use of the net proceeds from the sales of our Common Stock to Square Gate, if any, and investors may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Risks Related to our Business and Product Candidates

- We will need to raise additional financing to support our business objectives. We cannot be sure we will be able to obtain additional financing on terms favorable to us when needed, or at all. If we are unable to obtain additional financing to meet our needs, our operations may be adversely affected or terminated.
- We are currently receiving Research and Development, or R&D, tax credits from the UK in connection with our clinical trials being conducted in the UK. With effect for accounting periods starting on or after April 1, 2024, expenditure on certain staffing costs in connection with activities which take place outside the UK as part of our clinical trials, will not qualify for R&D tax credits unless restrictive conditions are met.
- If we fail to comply with our obligations under our patent licenses with third parties, we could lose license rights that are vital to our business.
- Changes in regulatory requirements or other unforeseen circumstances may impact the timing of the initiation or completion of our clinical trials.
- We face many of the risks and difficulties frequently encountered by relatively new companies with respect to our operations.
- We have no mature product candidates and may not be successful in licensing any.
- Even if we are successful in licensing lead product candidates, resource limitations may limit our ability to successfully develop them.

Risks Related to our Intellectual Property

- If we are unable to obtain and maintain patent protection for our products, our competitors could develop and commercialize products and technology similar or identical to our product candidates, and our ability to successfully commercialize any product candidates we may develop, and our science may be adversely affected.
- Obtaining and maintaining our patent protection depends on compliance with various procedural measures, document submissions, fee payments and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.
- We may be subject to claims challenging the inventorship of our patents and other intellectual property.
- Intellectual property rights do not necessarily address all potential threats.
- Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Risks Related to our Common Stock

- Our Common Stock may be delisted from Nasdaq if the Company cannot maintain compliance with Nasdaq's continued listing requirements.
- Any market activity involving short selling or other market making activities could result in negative impact to the market price for our Common Stock.
- We have never paid dividends on our capital stock, and we do not anticipate paying dividends in the foreseeable future.
- The market price of our shares may be subject to fluctuation and volatility. You could lose all or part of your investment.

January 2026 ELOC Offering

On January 30, 2026, we entered into the ELOC Purchase Agreement with Square Gate, pursuant to which the Company has the right, but not the obligation, to direct Square Gate to purchase up to \$25 million (the “Initial Commitment Amount”) in shares of Common Stock, which at the Company’s sole discretion can be increased by an additional \$25 million once the Initial Commitment Amount has been exhausted (the “Maximum Commitment Amount”), subject to the terms and conditions contained in the ELOC Purchase Agreement (the “Square Gate Purchase Shares”).

In consideration for Square Gate’s execution and delivery of the ELOC Purchase Agreement, the Company issued 35,342 shares of Common Stock and 62,124 Pre-Funded Warrants to purchase 62,124 shares of Common Stock to Square Gate (the “Commitment Shares”), having an aggregate value, as of January 30, 2026, of \$500,000. The Commitment Shares were issued as a commitment fee (the “Commitment Fee”) for no cash consideration and were deemed fully earned on the date of the ELOC Purchase Agreement. Square Gate may elect to receive Pre-Funded Warrants exercisable at \$0.003 per share (permitting cashless exercise with no expiration date) (the “Pre-Funded Warrants”) in lieu of shares of Common Stock. A total of 97,466 Commitment Shares were issued, consisting of 35,342 shares of Common Stock and Pre-Funded Warrants to purchase 62,124 shares of Common Stock. The number of Commitment Shares was calculated by dividing \$500,000 by the closing price of the Common Stock on the Trading Day (as defined in the ELOC Purchase Agreement, generally meaning any day on which Nasdaq is open for trading) preceding the Execution Date (the “Initial Commitment Share Reference Price”). If the closing price of our Common Stock on or around the effectiveness of this registration statement (the “True-Up Commitment Share Reference Price”) is less than the Initial Commitment Share Reference Price, we will be required to issue additional shares (the “True-Up Commitment Shares”) so that the aggregate number of Commitment Shares equals \$500,000 divided by the True-Up Commitment Share Reference Price. The Commitment Shares and any True-Up Commitment Shares may be resold by Square Gate immediately upon the effectiveness of this registration statement, which could exert downward pressure on our stock price. In addition, the Company is responsible for up to \$35,000 of Square Gate’s customary due diligence and legal fees in connection with the ELOC Purchase Agreement.

Concurrently with the execution of the ELOC Purchase Agreement, the Company and Square Gate also entered into a Registration Rights Agreement, dated as of January 30, 2026 (the “Registration Rights Agreement”), pursuant to which the Company agreed to file with the SEC a registration statement within 30 calendar days of the ELOC Purchase Agreement, and to have such registration statement declared effective by the SEC within 60 calendar days of the ELOC Purchase Agreement (the “Initial Registration Statement”), to register under the Securities Act the offer and resale by Square Gate of all the Square Gate Purchase Shares that may be issued and sold by the Company to Square Gate from time to time under the ELOC Purchase Agreement and the Commitment Shares (collectively, the “Registrable Securities”). The Company must also file one or more additional registration statements for the resale of the Registrable Securities if necessary.

During the term of the ELOC Purchase Agreement, the Company may direct Square Gate to purchase a certain portion of the Initial Commitment Amount (“Regular Put Amount”) by delivering a notice (“Put Notice”) to Square Gate. The Company shall, in its sole discretion, select the Regular Put Amount requested by the Company in each Put Notice. However, each requested Regular Put Amount may not exceed the lesser of (i) 100% of the average of the Average Daily Trading Volume (as defined in the ELOC Purchase Agreement) of the Common Stock over the five trading days preceding the trading day that a Put Notice is deemed delivered (the “Put Date”), (ii) thirty percent (30%) of the daily trading volume over the applicable Put Date, or (iii) \$500,000, subject to waiver by Square Gate in its sole discretion. The purchase price to be paid by Square Gate for the Regular Put Amount will be 95% of the lowest daily VWAP (as defined in the ELOC Purchase Agreement) of the Common Stock during the three trading days immediately following the applicable Put Date (the “Regular Valuation Period”).

During a Regular Valuation Period, the Company may submit one or more Put Notices to Square Gate, subject to Square Gate’s written acceptance, which shall state a number of additional shares of Common Stock (“Intraday Put Shares”) that the Company desires to sell to Square Gate on that same trading day. The purchase price to be paid by Square Gate for the Intraday Put Shares will be 95% of the lowest traded price during the Intraday Valuation Period (as defined in the ELOC Purchase Agreement). The maximum amount of Intraday Put Shares shall be 4.99% of the number of shares of Common Stock outstanding on the date of delivery of applicable Put Notice, which may be waived by Square Gate in its sole discretion.

Each Put Notice is subject to the following limitations: (1) the Company may not conduct a sale under the ELOC Purchase Agreement to the extent that the effect would be the purchase and sale of an aggregate number of shares of Common Stock that would exceed 19.99% of the outstanding shares of Common Stock as of the date of the ELOC Purchase Agreement (the “Exchange Cap”), until either the Company obtains the requisite stockholder approval for issuances in excess of the Exchange Cap or the average price of all applicable sales equals or exceeds \$5.13 per share, and (2) no Put Notice may cause the aggregate number of shares of Common Stock beneficially owned (as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, by Square Gate and its affiliates as a result of previous issuances and sales of shares of Common Stock to Square Gate under the ELOC Purchase Agreement to exceed 4.99% of the then issued and outstanding shares of Common Stock.

The Company will be prohibited from conducting any Variable Rate Transaction (as defined in the ELOC Purchase Agreement) without the prior written consent of Square Gate from any Put Date until the end of any Standstill Period (as defined in the ELOC Purchase Agreement); provided, however, that the Company may effect sales pursuant to a customary “at-the-market” facility with a FINRA-registered broker-dealer as sales agent.

The description of the ELOC Purchase Agreement, pre-funded warrants, and the Registration Rights Agreement are not complete and are qualified in their entirety by reference to the equity purchase agreement, form of pre-funded warrant, and registration rights agreement, which were filed as exhibits to our Current Report on Form 8-K, filed on February 5, 2026. See “*Where You Can Find More Information*” and “*Information Incorporated by Reference*.” The representations, warranties and covenants made by us in such agreements were made solely for the benefit of the parties to such agreements, including, in some cases, for the purpose of allocating risk among the parties thereto, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made as of an earlier date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Recent Developments

We reconvened our Annual Meeting of Stockholders (the “Annual Meeting”) on January 30, 2026, which was previously convened on December 31, 2025, and then adjourned, without conducting any business, due to insufficient votes to constitute a quorum. Of the 673,008 shares of our Common Stock, outstanding as of the record date of December 10, 2025, 339,272 shares of Common Stock were represented at the Annual Meeting, either by proxy or by attending the virtual annual meeting, constituting, of the shares entitled to vote, approximately 50.4% of the outstanding shares of Common Stock.

On February 2, 2026, Nasdaq’s Hearings Panel granted us an exception to cure our continued listing deficiencies, requiring that we regain compliance with Nasdaq Listing Rule 5550(b)(1) (stockholders’ equity of at least \$2,500,000) by March 30, 2026, and cure our 2025 annual meeting deficiency under Nasdaq Listing Rule 5620(a). The 2025 annual meeting deficiency was cured as described above.

On March 5, 2026, we filed with the Secretary of State of the State of Nevada a Certificate of Change (the “Certificate of Change”), pursuant to Nevada Revised Statutes 78.209, to effect a one-for-three (1-for-3) reverse stock split (the “Reverse Split”) of the Company’s issued and outstanding common stock. The Reverse Split was effective as of 12:01 a.m. Eastern Time on March 10, 2026 (March 9, 2026, at 9:01 p.m. Pacific Time) (the “Effective Time”). As a result of the Reverse Split, each three (3) pre-split shares of common stock outstanding automatically combined into one (1) new share of common stock without any action on the part of the holders, and the number of outstanding shares of common stock was reduced from 2,124,772 to approximately 736,127. The number of authorized shares of common stock was reduced from 500,000,000 to 166,666,667, while the number of authorized shares of preferred stock was reduced from 69,444 to 23,148. The common stock par value of \$0.001 per share remained unchanged after the Reverse Split. The Reverse Split was effected in order to improve the marketability and liquidity of the Company’s common stock.

On March 12, 2026, we entered into a securities purchase agreement with Vanquish Funding Group Inc., pursuant to which we issued a 12% bridge note that matures on January 15, 2027, in the aggregate principal amount of \$237,300, which includes an original issue discount of \$27,300, for an aggregate purchase price of \$210,000. Solely upon the occurrence and continuation of an Event of Default (as defined in the bridge note), the buyer shall have the right, but not the obligation, to convert all or any portion of the outstanding balance of the bridge note, including principal, accrued interest, and any applicable default amount, into shares of our common stock. The conversion price is the greater of (i) \$0.125 and (ii) 75% of the lowest trading price of our common stock during the ten (10) trading days immediately preceding the applicable conversion date.

On March 12, 2026, we entered into a securities purchase agreement with Boot Capital LLC, pursuant to which we issued a 12% bridge note that matures on January 15, 2027, in the aggregate principal amount of \$113,000, which includes an original issue discount of \$13,000, for an aggregate purchase price of \$100,000. Solely upon the occurrence and continuation of an Event of Default (as defined in the bridge note), the buyer shall have the right, but not the obligation, to convert all or any portion of the outstanding balance of the bridge note, including principal, accrued interest, and any applicable default amount, into shares of our common stock. The conversion price is the greater of (i) \$0.125 and (ii) 75% of the lowest trading price of our common stock during the ten (10) trading days immediately preceding the applicable conversion date.

Corporate Information

We were incorporated in the State of Nevada on May 2, 2011, as Knight Knox Development Corp. On January 19, 2017, we changed our name to Reactive Medical, Inc. and on April 14, 2017, we changed our name to Artelo Biosciences, Inc. Our principal executive office is located at 505 Loma Santa Fe, Suite 160, Solana Beach, California 92075 and our telephone number is (858) 925-7049. Our corporate website address is www.artelobio.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

Implications of Being a Smaller Reporting Company

Additionally, we are a “smaller reporting company” as defined in Rule 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company until the last day of the fiscal year in which (1) the market value of our Common Stock held by non-affiliates equals or exceeds \$250 million as of the end of that year’s second fiscal quarter, or (2) our annual revenues equaled or exceeded \$100 million during such completed fiscal year and the market value of our Common Stock held by non-affiliates equals or exceeds \$700 million as of the end of that year’s second fiscal quarter.

The Offering

Shares of Common Stock Offered by the Selling Stockholder	Up to 4,273,519 shares of Common Stock, consisting of (i) up to 146,199 Commitment Shares issued or issuable to Square Gate and (ii) up to 4,127,320 shares that we may elect, in our sole discretion, to issue and sell to Square Gate under the ELOC Purchase Agreement, from time to time after the date of this prospectus and during the term of the ELOC Purchase Agreement.
Selling Stockholder	Square Gate Capital Master Fund, LLC - Series 5, a series limited liability company organized in the state of Delaware.
Use of proceeds	We will not receive any proceeds from any sale of the shares being offered for sale by the Selling Stockholder. We may receive up to \$50,000,000 in aggregate gross proceeds under the ELOC Purchase Agreement from sales of Common Stock that we may elect to make to Square Gate pursuant to the ELOC Purchase Agreement, if any, from time to time in our sole discretion. See “ <i>Use of Proceeds</i> ” for additional information.
Dividend policy	We have never declared or paid any cash dividends on our shares of Common Stock. We do not anticipate paying any cash dividends in the foreseeable future.
Risk factors	You should carefully consider the risk factors described in the section of this prospectus entitled “ <i>Risk Factors</i> ,” together with all of the other information included in this prospectus, before deciding to purchase our shares of Common Stock.
Market and trading symbol	Our shares of Common Stock are traded on The Nasdaq Capital Market tier of Nasdaq under the symbol “ARTL.”

RISK FACTORS

An investment in our securities involves a high degree of risk. Our business, financial condition or results of operations could be materially and adversely affected by any of these risks. If any of these risks occur, the value of our shares of Common Stock and our other securities may decline. Before making your investment decision, you should carefully consider the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled “*Risk Factors*” contained in any supplements to this prospectus, in our Annual Report on Form 10-K filed with the SEC on February 24, 2026, as updated or supplemented on our Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and in our subsequent filings with the SEC. Each of the referenced risks and uncertainties could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities. These disclosures reflect our beliefs and opinions as to factors that could materially and adversely affect us and our securities in the future. References to past events are provided by way of example only and are not intended to be a complete listing or a representation as to whether or not such factors have occurred in the past or their likelihood of occurring in the future.

Risks Related to This Offering

It is not possible to predict the actual number of shares of the Common Stock we will sell under the ELOC Purchase Agreement to Square Gate, or the actual gross proceeds resulting from those sales.

On January 30, 2026, we entered into the ELOC Purchase Agreement with Square Gate, pursuant to which Square Gate has committed to purchase up to \$25,000,000 of our Common Stock (which at our sole discretion can be increased by an additional \$25,000,000 once the initial commitment amount has been exhausted, for a maximum commitment amount of up to \$50,000,000), subject to certain limitations and conditions set forth in the ELOC Purchase Agreement. The Common Stock that may be issued under the ELOC Purchase Agreement may be sold by us to Square Gate at our discretion from time to time during the commitment period under the ELOC Purchase Agreement (the “Commitment Period”), which commenced on January 30, 2026, and ends on the earlier of (i) the date on which Square Gate has purchased shares equal to the maximum commitment amount, (ii) January 30, 2029, or (iii) termination of the ELOC Purchase Agreement in accordance with its terms.

We generally have the right to control the timing and amount of any sales of our Common Stock to Square Gate under the ELOC Purchase Agreement. Sales of our Common Stock, if any, to Square Gate under the ELOC Purchase Agreement will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Square Gate all, some or none of our Common Stock that may be available for us to sell to Square Gate pursuant to the ELOC Purchase Agreement.

Because the purchase price per share to be paid by Square Gate for our Common Stock that we may elect to sell to Square Gate under the ELOC Purchase Agreement, if any, will fluctuate based on the market prices of our Common Stock at the time we elect to sell shares to Square Gate pursuant to the ELOC Purchase Agreement, if any, it is not possible for us to predict, as of the date of this prospectus and prior to any such sales, the number of our Common Stock that we will sell to Square Gate under the ELOC Purchase Agreement, the purchase price per share that Square Gate will pay for shares purchased from us under the ELOC Purchase Agreement, or the aggregate gross proceeds that we will receive from those purchases by Square Gate under the ELOC Purchase Agreement.

Although the ELOC Purchase Agreement provides that we may sell up to an aggregate of \$25,000,000 of our Common Stock to Square Gate (which may be increased to \$50,000,000 at our sole discretion once the initial commitment amount has been exhausted), up to 4,273,519 shares of Common Stock are being registered for resale under the registration statement that includes this prospectus. The number of shares of Common Stock ultimately offered for resale by Square Gate is dependent upon the number of the shares of Common Stock, if any, we ultimately elect to sell to Square Gate pursuant to the ELOC Purchase Agreement.

If we elect to issue and sell to Square Gate pursuant to the ELOC Purchase Agreement more Common Stock than are being registered for resale under this prospectus in order to receive aggregate gross proceeds equal to the maximum commitment amount available under the ELOC Purchase Agreement, we will file with the SEC one or more additional registration statements to register under the Securities Act the resale by Square Gate of any such additional Common Stock we elect to sell to Square Gate from time to time under the ELOC Purchase Agreement, and the SEC must declare such additional registration statements effective before we can sell any additional Common Stock to Square Gate under the ELOC Purchase Agreement. Any issuance and sale by us under the ELOC Purchase Agreement of a substantial amount of Common Stock in addition to the Common Stock being registered for resale under this prospectus could cause additional substantial dilution to our shareholders.

In addition, pursuant to the terms of the ELOC Purchase Agreement, (i) the number of Common Stock we will sell to Square Gate under each Put Notice will not exceed the Beneficial Ownership Limitation which is 4.99% of the then total outstanding Common Stock, and (ii) the aggregate number of Common Stock we will sell to Square Gate will not exceed the “Exchange Cap” which is 19.99% of the aggregate number of shares of Common Stock issued and outstanding as of the date of the ELOC Purchase Agreement, unless (a) our stockholders have approved the issuance of shares of Common Stock in excess of the Exchange Cap, or (b) the average price of all applicable sales equals or exceeds \$5.13 per share. If the market price of our Common Stock declines such that the average price of all sales falls below \$5.13 per share, we may be unable to access the full commitment amount under the ELOC Purchase Agreement without first obtaining stockholder approval, which we may not be able to obtain.

Our inability to access a portion or the full amount available under the ELOC Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business.

The sale and issuance of our Common Stock to Square Gate will cause dilution to our existing shareholders, and the sale of Common Stock acquired by Square Gate or the perception that such sales may occur could cause the price of our Common Stock to fall.

The purchase price for the Common Stock that we may sell to Square Gate under the ELOC Purchase Agreement will fluctuate based on the price of our Common Stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our Common Stock to fall.

If and when we do sell shares to Square Gate, after Square Gate has acquired the shares, Square Gate may resell all, some, or none of those shares at any time or from time to time in its discretion. Therefore, sales to Square Gate by us could result in substantial dilution to the interests of other holders of our Common Stock. Additionally, the sale of a substantial number of Common Stock to Square Gate, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

Investors who buy shares at different times will likely pay different prices. Pursuant to the ELOC Purchase Agreement, we will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares of Common Stock sold to Square Gate. If and when we do elect to sell Common Stock to Square Gate pursuant to the ELOC Purchase Agreement, after Square Gate has acquired such shares, Square Gate may resell all, some or none of such shares at any time or from time to time in its discretion and at different prices. As a result, investors who purchase shares from Square Gate at different times will likely pay different prices for those shares, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. Investors may experience a decline in the value of the shares they purchase from Square Gate as a result of future sales made by us to Square Gate at prices lower than the prices such investors paid for their shares. In addition, if we sell a substantial number of shares to Square Gate under the ELOC Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Square Gate may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales.

Square Gate will pay less than the then-prevailing market price for the Common Stock, which could cause the price of the Common Stock to decline.

The purchase price of the Common Stock sold to Square Gate under the ELOC Purchase Agreement is derived from 95% of the lowest daily VWAP of the Common Stock during the three-trading day valuation period immediately following the applicable Put Date for Regular Puts, or 95% of the lowest traded price during the Intraday Valuation Period for Intraday Puts. Our Common Stock to be sold to Square Gate pursuant to the ELOC Purchase Agreement will be purchased at a discounted price. As a result of the pricing structure, Square Gate may sell the Common Stock it receives immediately after receipt of such shares, which could cause the price of our Common Stock to decline.

The ELOC Purchase Agreement restricts our ability to engage in certain equity financings during its term, which may limit our financing flexibility.

Under the ELOC Purchase Agreement, we have agreed not to enter into any Variable Rate Transaction (as defined in the ELOC Purchase Agreement) without Square Gate's prior written consent from any Put Date until the end of any applicable Standstill Period. A Variable Rate Transaction generally includes any transaction in which we issue equity or debt securities at a price that varies with trading prices or is subject to reset, or any other equity line of credit or continuous offering whereby shares may be sold at a future determined price. We have also agreed not to issue any shares of Common Stock or convertible securities for a period of 20 Trading Days following the effectiveness of this registration statement, and we may not enter into any other equity line of credit agreement with any other party during the term of the ELOC Purchase Agreement without Square Gate's consent. While sales pursuant to a customary "at-the-market" facility are generally permitted, these restrictions may nevertheless limit our ability to raise additional capital through alternative equity financing arrangements during the term of the ELOC Purchase Agreement, which could have a material adverse effect on our business and financial condition if we require additional capital and are unable to access the ELOC or obtain Square Gate's consent to alternative financings.

Our management team will have broad discretion over the use of the net proceeds from the sales of our Common Stock to Square Gate, if any, and investors may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management team will have broad discretion as to the use of the net proceeds from our sale of our Common Stock to Square Gate, if any, and we could use such proceeds for purposes other than those contemplated at the time of commencement of this offering. Accordingly, investors will be relying on the judgment of our management team with regard to the use of those net proceeds, and investors will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest those net proceeds in a way that does not yield a favorable, or any, return for us. The failure of our management team to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flows.

Risks Related to Our Common Stock

Our Common Stock may be delisted from Nasdaq if the Company cannot maintain compliance with Nasdaq's continued listing requirements.

In order to maintain our listing on The Nasdaq Capital Market tier of Nasdaq, the Company is required to comply with the Nasdaq requirements, which includes maintaining minimum stockholders' equity.

On May 22, 2025, we received a notice from the Nasdaq staff notifying us that, because our stockholders' equity was below \$2.5 million as reported on our Quarterly Report on Form 10-Q for the quarter ended March 31, 2025, we no longer meet the minimum stockholders' equity requirement for continued listing on Nasdaq under Nasdaq Listing Rule 5550(b)(1). Pursuant to the notice and the Listing Rules of Nasdaq, we submitted a plan to regain compliance with the minimum stockholders' equity requirement within 45 calendar days of receiving the letter from the Staff. This plan was updated and resubmitted to Nasdaq on August 29, 2025. The Nasdaq staff determined that the Company has not completed the capital raising that was discussed in the materials submitted to Nasdaq on July 7, 2025, and August 29, 2025, which the Company expected would enable it to demonstrate compliance with the Listing Rule. As a result, on November 19, 2025, the Company received a delist determination letter from Nasdaq advising the Company that the Nasdaq staff had determined that the Company had not satisfied the conditions set forth in the May 22 letter to regain compliance. Additionally, because the Company's annual shareholder meeting on December 31, 2025, was adjourned due to a lack of a quorum, Nasdaq issued an additional deficiency notice related to the requirement for holding annual meetings. The Company appealed Nasdaq's determination to a hearing panel on January 15, 2026, to stay any further delisting actions. On February 2, 2026, the hearing panel issued an extension to March 30, 2026, for the Company to resolve the minimum shareholders' equity deficiency. The Company held its annual meeting on January 30, 2026, and cured the annual meeting deficiency. Following the hearing panel's extension, the Company's Common Stock will continue to trade on Nasdaq under the symbol "ARTL."

Although we intend to use all reasonable efforts to achieve compliance with all Nasdaq listing standards, there can be no assurance that we will be able to regain compliance with the listing standards or that we will otherwise be in compliance with other applicable Nasdaq listing criteria. Furthermore, Nasdaq may delist our Common Stock for public interest concerns, even if we are able to regain compliance for continued listing on Nasdaq under the listing requirements. Importantly, under the ELOC Purchase Agreement, Square Gate is not obligated to purchase shares from us if our Common Stock has been suspended from trading or delisted from Nasdaq, and if we receive a final delisting notice, Square Gate may terminate the ELOC Purchase Agreement entirely. Therefore, our failure to maintain Nasdaq listing would likely result in our inability to access the financing contemplated by the ELOC Purchase Agreement.

If the Company is unable to maintain compliance with Nasdaq's continued listing requirements, delisting from The Nasdaq Capital Market or any Nasdaq market could make trading our Common Stock more difficult for investors, potentially leading to declines in our share price and liquidity. In addition, without a Nasdaq market listing, stockholders may have a difficult time getting a quote for the sale or purchase of our stock, the sale or purchase of our stock would likely be made more difficult and the trading volume and liquidity of our stock could decline. Delisting from Nasdaq could also result in negative publicity and could also make it more difficult for us to raise additional capital. The absence of such a listing may adversely affect the acceptance of our Common Stock as currency or the value accorded by other parties. Further, if the Company is delisted, the Company would also incur additional costs under state blue sky laws in connection with any sales of our securities. These requirements could severely limit the market liquidity of our Common Stock and the ability of our stockholders to sell our Common Stock in the secondary market. If our Common Stock is delisted by Nasdaq, our Common Stock may be eligible to trade on an over-the-counter quotation system, such as the OTCQB market, where an investor may find it more difficult to sell our stock or obtain accurate quotations as to the market value of our Common Stock. The Company cannot assure you that our Common Stock, if delisted from Nasdaq, will be listed on another national securities exchange or quoted on an over-the counter quotation system. If our Common Stock is delisted, it may come within the definition of "penny stock" as defined in the Securities Exchange Act of 1934, as amended (the "Exchange Act") and would be covered by Rule 15g-9 of the Exchange Act. That Rule imposes additional sales practice requirements on broker-dealers who sell securities to persons other than established customers and accredited investors. For transactions covered by Rule 15g-9, the broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written agreement to the transaction prior to the sale. Consequently, Rule 15g-9, if it were to become applicable, would affect the ability or willingness of broker-dealers to sell our securities, and accordingly would affect the ability of stockholders to sell their securities in the public market. These additional procedures could also limit our ability to raise additional capital in the future.

If the Company sells securities in future financings our stockholders may experience immediate dilution and, as a result, our stock price may decline.

The Company may from time-to-time issue additional shares of Common Stock at a discount from the current market price of our Common Stock, including potential sales of our equity to an institutional investor as described above. As a result, our stockholders would experience immediate dilution upon the purchase of any of our securities sold at such discount. In addition, as opportunities present themselves, the Company may enter into financing or similar arrangements in the future, including the issuance of debt securities, preferred stock or Common Stock. If the Company issues Common Stock or securities convertible into Common Stock, our common stockholders could experience additional dilution and, as a result, our stock price may decline.

Any market activity involving short selling or other market making activities could result in negative impact to the market price for our Common Stock.

Short selling is a method used to capitalize on an expected decline in the market price of a security and could depress the price of our Common Stock, which could further increase the potential for future short sales. Sales of our Common Stock could encourage short sales by market participants, which could create negative market momentum. Continued short selling may bring about a temporary, or possibly long term, decline in the market price of our Common Stock. The Company cannot predict the size of future issuances or sales of Common Stock or the effect, if any, that future issuances and sales of Common Stock will have on its market price or the activities of short sellers. Sales involving significant amounts of Common Stock, including issuances made in the ordinary course of the Company's business, or the perception that such sales could occur, may materially and adversely affect prevailing market prices of the Common Stock.

We have never paid dividends on our capital stock, and we do not anticipate paying dividends in the foreseeable future.

We have never paid dividends on any of our capital stock and currently intend to retain any future earnings to fund the growth of our business. We may also enter into credit agreements or other borrowing arrangements in the future that will restrict our ability to declare or pay cash dividends on our Common Stock. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. As a result, capital appreciation, if any, of the securities will be the sole source of gain, if any, for the foreseeable future.

The market price of our shares may be subject to fluctuation and volatility. You could lose all or part of your investment.

The market price of our common stock is subject to wide fluctuations in response to various factors, some of which are beyond our control. The market price of our shares on Nasdaq may fluctuate as a result of a number of factors, some of which are beyond our control, including, but not limited to:

- actual or anticipated variations in our and our competitors' results of operations and financial condition
- changes in earnings estimates or recommendations by securities analysts, if our shares are covered by analysts;
- market acceptance of our product candidates;
- our obligation to use commercially reasonable efforts to use \$250,000 of the net proceeds from our June 2025 private placement to purchase Solana, as required by the related purchase agreement;
- development of technological innovations or new competitive products by others;
- announcements of technological innovations or new products by us;
- publication of the results of preclinical or clinical trials for our product candidates;
- failure by us to achieve a publicly announced milestone;
- delays between our expenditures to develop and market new or enhanced products and the generation of sales from those products;
- developments concerning intellectual property rights, including our involvement in litigation brought by or against us;
- regulatory developments and the decisions of regulatory authorities as to the approval or rejection of new or modified products;
- changes in the amounts that we spend to develop, acquire or license new products, technologies or businesses;
- changes in our expenditures to promote our product candidates;
- our sale or proposed sale, or the sale by our significant stockholders, of our shares or other securities in the future;
- changes in key personnel;
- success or failure of our research and development projects or those of our competitors;
- the trading volume of our shares; and
- general economic and market conditions and other factors, including factors unrelated to our operating performance.

These factors and any corresponding price fluctuations may materially and adversely affect the market price of our shares and result in substantial losses being incurred by our investors. In the past, following periods of market volatility, public company stockholders have often instituted securities class action litigation. If we were involved in securities litigation, it could impose a substantial cost upon us and divert the resources and attention of our management from our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available. This section should be read in conjunction with our financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2025. The statements contained or incorporated by reference in this prospectus that are not historical facts are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements can be identified by words such as "believe," "anticipate," "may," "might," "can," "could," "continue," "depends," "expect," "expand," "forecast," "intend," "predict," "plan," "rely," "should," "will," "may," "seek," or the negative of these terms and other similar expressions, although not all forward-looking statements contain these words. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements.

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including, but not limited to, those described in "*Risk Factors*." These forward-looking statements reflect our beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. We discuss many of these risks in greater detail in the section entitled "*Risk Factors*" and elsewhere in this prospectus, including the information incorporated by reference. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We qualify all of the forward-looking statements in this prospectus by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

This prospectus and the information incorporated by reference also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data, and similar sources.

THE ELOC PURCHASE AGREEMENT

General

On January 30, 2026 (the "Execution Date"), we entered into the ELOC Purchase Agreement with Square Gate. Pursuant to the ELOC Purchase Agreement, we have the right to sell to Square Gate up to \$25,000,000 of our Common Stock (the Initial Commitment Amount), subject to certain limitations and conditions set forth in the ELOC Purchase Agreement, from time to time during the term of the ELOC Purchase Agreement. Upon utilizing the entire Initial Commitment Amount, we have the right, at our sole discretion, to sell to Square Gate up to an additional \$25,000,000 of our Common Stock, for a total potential commitment of up to \$50,000,000 (the Maximum Commitment Amount). Sales of our Common Stock pursuant to the ELOC Purchase Agreement, and the timing of any sales, are solely and exclusively at our option, and we are under no obligation to sell any securities to Square Gate under the ELOC Purchase Agreement. Square Gate has no right to require us to sell any Common Stock to Square Gate, but Square Gate is obligated to make purchases at our direction subject to certain conditions.

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In accordance with the ELOC Purchase Agreement, we have filed the registration statement that includes this prospectus with the SEC to register under the Securities Act the resale by Square Gate of the shares of our Common Stock that are issuable under the ELOC Purchase Agreement that we may elect, in our sole discretion, to issue and sell to Square Gate, from time to time during the Commitment Period under the ELOC Purchase Agreement, and the Commitment Shares issued to Square Gate in connection with the ELOC Purchase Agreement.

Upon the initial satisfaction of the conditions to Square Gate's purchase obligations set forth in the ELOC Purchase Agreement, including that the registration statement that includes this prospectus shall have been declared effective by the SEC, we will have the right, but not the obligation, from time to time in our sole discretion during the Commitment Period, to direct Square Gate to purchase shares of our Common Stock by delivering a Put Notice to Square Gate.

From and after the effectiveness of the registration statement, we will control the timing and amount of any sales of our Common Stock to Square Gate under the ELOC Purchase Agreement. Actual sales of our Common Stock to Square Gate under the ELOC Purchase Agreement will depend on a variety of factors to be determined by us from time to time, including, among other things, market conditions, the trading price of our Common Stock and determinations by us as to the appropriate sources of funding for our business and operations. We expect that any proceeds received by us from such sales to Square Gate will be used for working capital and general corporate purposes.

The ELOC Purchase Agreement contains customary representations, warranties, conditions and indemnification obligations of the parties. A copy of the ELOC Purchase Agreement was filed as an exhibit to the Current Report on Form 8-K we filed on February 5, 2026, has been incorporated by reference to the exhibit index of the registration statement that includes this prospectus and is available electronically on the SEC's website at www.sec.gov.

Purchase of Common Stock

Regular Puts

During the Commitment Period, we may direct Square Gate to purchase shares of our Common Stock by delivering a Regular Put Notice via email to Square Gate.

The maximum number of shares of Common Stock we may sell to Square Gate in any single Regular Put (the "Maximum Regular Put Amount") is the lesser of: (i) 100% of the average daily trading volume of the Common Stock over the five Trading Days preceding the applicable Put Date; (ii) 30% of the daily trading volume of the Common Stock on the applicable Put Date; or (iii) \$500,000. The purchase price to be paid by Square Gate for shares purchased in a Regular Put (the "Regular Purchase Price") will be 95% of the lowest daily VWAP of the Common Stock on Nasdaq during the Regular Valuation Period, i.e. three consecutive Trading Days immediately following the applicable Put Date.

Settlement of a Regular Put will occur two Trading Days following the end of the Regular Valuation Period, at which time Square Gate will pay the investment amount minus clearing costs by wire transfer of immediately available funds.

Intraday Puts

During any Regular Valuation Period, we may submit one or more Intraday Put Notices by email to Square Gate, requesting that Square Gate purchase Intraday Put Shares, or additional shares of Common Stock on the same Trading Day. Each Intraday Put is subject to Square Gate's written acceptance.

The maximum number of Intraday Put Shares in any single Intraday Put (the "Maximum Intraday Put Amount") is 4.99% of the number of shares of Common Stock outstanding on the date of delivery of the applicable Intraday Put Notice. The purchase price to be paid by Square Gate for Intraday Put Shares (the "Intraday Purchase Price") will be 95% of the lowest traded price during the Intraday Valuation Period. The Intraday Valuation Period begins 15 minutes after the Transfer Agent's confirmation that it is processing the Intraday Put Shares for issuance, and ends based on trading volume and time thresholds as specified in the ELOC Purchase Agreement. We may deliver multiple Intraday Put Notices during a single Trading Day.

Commitment Shares

In consideration for Square Gate's execution, delivery and performance under the ELOC Purchase Agreement, on January 30, 2026, we issued to Square Gate securities having an aggregate stated value of \$500,000 as the Commitment Fee, for which we received no cash consideration. The Commitment Fee was paid in the form of the Commitment Shares. Specifically, we issued 35,342 shares of Common Stock and Pre-Funded Warrants to purchase 62,124 shares of Common Stock, for a total of 97,466 Commitment Shares. The number of Commitment Shares issued on the Execution Date was calculated by dividing \$500,000 by the closing price of the Common Stock on Nasdaq on the Trading Day immediately preceding the Execution Date (\$5.13 per share), which is the Initial Commitment Share Reference Price. Square Gate had the option, at its election, to receive Pre-Funded Warrants in lieu of any or all of the Commitment Shares. Square Gate elected to receive 62,124 Pre-Funded Warrants and 35,342 shares of Common Stock.

Upon the earlier of (i) the Commitment Shares becoming eligible for resale under Rule 144 or (ii) the effectiveness of the registration statement covering the resale of the Commitment Shares, if the True-Up Commitment Share Reference Price is less than the Initial Commitment Share Reference Price, we will immediately issue additional True-Up Commitment Shares, for no additional cash consideration, so that the aggregate number of Commitment Shares equals \$500,000 divided by the True-Up Commitment Share Reference Price. The True-Up Commitment Share Reference Price is generally based on the closing price of the Common Stock on or around the date on which the registration statement becomes effective or the date on which the initial Commitment Shares become Rule 144 eligible, whichever occurs first, as more fully described in the ELOC Purchase Agreement. Based on the closing price of our Common Stock of \$7.97 on March 20, 2026, which exceeds the post-split adjusted Initial Commitment Share Reference Price of \$5.13 per share, no True-Up Commitment Shares are currently issuable; however, if the True-Up Commitment Share Reference Price on or around the date of effectiveness of this registration statement is less than \$5.13 per share, we will be required to issue additional True-Up Commitment Shares at that time. The Commitment Fee and Commitment Shares are fully earned as of the Execution Date and are not contingent upon any other event or condition, including the effectiveness of the registration statement or our submission of a Put Notice. The Commitment Shares (including any True-Up Commitment Shares) may be resold by Square Gate immediately upon the effectiveness of this registration statement.

Termination

The Commitment Period under the ELOC Purchase Agreement commenced on the Execution Date and ends on the earliest of: (i) the date on which Square Gate shall have purchased shares of Common Stock sold pursuant to Put Notices ("Put Shares") equal to the Maximum Commitment Amount; (ii) January 30, 2029; (iii) provided that the registration statement shall have been previously declared effective by the SEC, written notice of termination by us to Square Gate (which shall not occur at any time that Square Gate holds any of the Put Shares); or (iv) written notice of termination by Square Gate to us if we receive a final delisting notice from Nasdaq or if the Common Stock fails to be listed on an eligible market.

Conditions to Delivery of Put Notices

The obligation of Square Gate to purchase Put Shares under the ELOC Purchase Agreement is subject to satisfaction of certain conditions, including, among others (capitalized terms used herein but not defined shall have the meanings ascribed to them in the ELOC Purchase Agreement):

- the registration statement, and any amendment or supplement thereto, shall remain effective for the resale by Square Gate of the Put Shares and the Commitment Shares, and neither we nor Square Gate shall have received notice that the SEC has issued or intends to issue a stop order with respect to such registration statement;
- our representations and warranties shall be true and correct in all material respects;

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- we shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the ELOC Purchase Agreement;
- no Material Adverse Effect shall have occurred since the date of filing of our most recent SEC Document, and no statute, rule, regulation, or order shall have been enacted that prohibits the transactions contemplated by the Transaction Documents;
- trading of the Common Stock shall not have been suspended by the SEC, Nasdaq or FINRA, or otherwise halted for any reason, and the Common Stock shall not have been delisted;
- the issuance of the Put Shares shall not violate the shareholder approval requirements of Nasdaq;
- we shall have delivered to Square Gate an officer's certificate to the effect that all conditions to closing shall have been satisfied;
- the Common Stock must be DWAC Eligible and not subject to a "DTC chill," and all required Exchange Act reports (other than Forms 8-K) shall have been timely filed;
- the Transfer Agent Instruction Letters shall have been executed and delivered, and we shall have delivered to Square Gate a satisfactory legal opinion; and
- from any Put Date until the end of any Standstill Period, we shall not have entered into any Variable Rate Transaction without the prior written consent of Square Gate.

No Short-Selling or Hedging

Square Gate has represented that, as of the Execution Date and for the 60 days prior thereto, it and its affiliates have not been and are not "short" any Common Stock. Square Gate has agreed that neither it, nor any affiliate acting on its behalf or pursuant to any understanding with it, will in any manner whatsoever, directly or indirectly, (i) participate in or execute any Short Sales (as defined in Rule 200 of Regulation SHO under the Exchange Act) during the period from the Execution Date to the end of the Commitment Period, or (ii) engage in any hedging transaction that would create a net short position with respect to the shares of Common Stock. Notwithstanding the foregoing, in accordance with Regulation SHO, the sale after delivery of a Put Notice of such number of shares of Common Stock reasonably expected to be purchased under such Put Notice shall not be deemed a Short Sale. This exception permits Square Gate to sell shares into the market that it anticipates receiving from us pursuant to a Put Notice, even before such shares are actually delivered to Square Gate.

Limitations on Sales

Exchange Cap

Notwithstanding anything to the contrary in the ELOC Purchase Agreement, we may not effect, and Square Gate will not be obligated to make, any sales under the ELOC Purchase Agreement to the extent that the aggregate number of shares issued under the ELOC Purchase Agreement would exceed 134,515 shares (representing 19.99% of the aggregate number of shares of Common Stock issued and outstanding as of the Execution Date), which is the Exchange Cap. The Exchange Cap will not apply if (a) our stockholders approve the issuance of shares of Common Stock pursuant to the ELOC Purchase Agreement in excess of the Exchange Cap in accordance with the rules of Nasdaq, or (b) the Average Price of all applicable sales of shares hereunder (including any sales covered by a Regular Put Notice or Intraday Put Notice that has been delivered prior to the determination) equals or exceeds \$5.13 per share (which represents the lower of (i) the Nasdaq Official Closing Price immediately preceding the Execution Date and (ii) the average Nasdaq Official Closing Price for the five Trading Days immediately preceding the Execution Date). The "Average Price" is calculated by dividing the aggregate gross purchase price paid by Square Gate for all shares purchased under the ELOC Purchase Agreement by the aggregate number of shares issued thereunder; for this calculation, the purchase price for each Commitment Share is deemed to be \$0.00. As a result, if the market price of our Common Stock declines such that the Average Price falls below \$5.13 per share, we would be limited to issuing only 134,515 shares under the ELOC Purchase Agreement unless we obtain stockholder approval.

Beneficial Ownership Limitation

No Put Notice may cause the aggregate number of shares of Common Stock beneficially owned by Square Gate and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act) to exceed 4.99% of the then issued and outstanding shares of Common Stock (the “Beneficial Ownership Limitation”). Square Gate may increase or decrease the Beneficial Ownership Limitation upon notice to us, provided that the Beneficial Ownership Limitation shall in no event exceed 9.99%, and any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to us.

Prohibition on Variable Rate Transactions

Unless waived by Square Gate, we have agreed not to issue any shares of Common Stock or other securities convertible into or exercisable or exchangeable for shares of Common Stock, or enter into any agreement to do so, (a) for a period of 20 Trading Days following the date the registration statement becomes effective, and (b) during each Standstill Period, which generally begins upon the submission of a Put Notice that has been accepted and ends upon the later of (1) the Trading Day following the expiration of the applicable Valuation Period and (2) the close of the Trading Day on which the aggregate trading volume of the Common Stock since issuance of such Put Notice exceeds 500% of the number of Put Shares sold pursuant to such Put Notice. The provisions of this standstill restriction do not apply to sales of securities in an “at-the-market” offering, except during the period from the time when the Regular Valuation Period expires until the time specified in clause (b)(2) above. These restrictions may limit our ability to raise additional capital through equity financings during the term of the ELOC Purchase Agreement.

A “Variable Rate Transaction” generally means a transaction in which we issue or sell equity or debt securities at a price that varies with trading prices or that is subject to reset, or enter into any other equity line of credit or continuous offering whereby shares may be sold at a future determined price; provided, however, that we may effect sales pursuant to a customary “at-the-market” facility with a FINRA-registered broker-dealer as sales agent.

In addition, so long as the ELOC Purchase Agreement remains in effect, we have agreed not to enter into any other equity line of credit agreement with any other party without Square Gate’s prior written consent.

Effect of the ELOC Purchase Agreement on Our Stockholders

All shares of Common Stock registered in this offering that may be issued or sold by us to Square Gate under the ELOC Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to approximately three years commencing on the date that the registration statement of which this prospectus is a part becomes effective. The sale by Square Gate of a significant number of shares registered in this offering at any given time could cause the market price of our Common Stock to decline and to be highly volatile. Sales of our Common Stock to Square Gate, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Square Gate all, some or none of the Common Stock that may be available for us to sell pursuant to the ELOC Purchase Agreement. If and when we do sell Common Stock to Square Gate, after Square Gate has acquired the Common Stock, Square Gate may resell all, some or none of those shares at any time or from time to time in its discretion.

Therefore, sales to Square Gate by us under the ELOC Purchase Agreement, the resale by Square Gate of a significant amount of shares registered for resale in this offering at any given time, or the perception that these sales may occur, could cause the market price of our Common Stock to decline and to be highly volatile and may result in substantial dilution to the interests of other holders of our Common Stock. However, we have the right to control the timing and amount of any additional sales of our Common Stock to Square Gate and the ELOC Purchase Agreement may be terminated by us at any time at our discretion without any cost to us (subject to the conditions set forth above under “— Termination”).

The issuance of our Common Stock to Square Gate pursuant to the ELOC Purchase Agreement will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted. Although the number of shares of Common Stock that our existing stockholders own will not decrease, the shares of Common Stock owned by our existing stockholders will represent a smaller percentage of our total outstanding shares of Common Stock after any such issuance.

Determination of Offering Price

Because the purchase price per share to be paid by Square Gate for the Common Stock that we may elect to sell under the ELOC Purchase Agreement, if any, will fluctuate based on the market prices of our Common Stock during the applicable Valuation Period for each Put, as of the date of this prospectus, it is not possible for us to predict the number of shares of Common Stock that we will sell to Square Gate under the ELOC Purchase Agreement, the actual purchase price per share to be paid by Square Gate for those shares, or the actual gross proceeds to be raised by us from those sales, if any.

The following table sets forth the amount of gross proceeds we would receive from Square Gate from our sale of shares to Square Gate under the ELOC Purchase Agreement at varying assumed average purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares to be Issued if Full Purchase⁽¹⁾	Percentage of Outstanding Shares After Giving Effect to the Issuance to Square Gate⁽²⁾	Gross Proceeds from the Sale of Shares to Square Gate Under the ELOC Purchase Agreement
\$6.00	4,166,667	85.02%	\$25,000,000
\$7.00	3,571,429	82.90%	\$25,000,000
\$7.5715 ⁽³⁾	3,301,856	81.77%	\$25,000,000
\$10.00	2,500,000	77.26%	\$25,000,000
\$15.00	1,666,667	69.36%	\$25,000,000

- (1) Although the ELOC Purchase Agreement provides that we may sell up to \$25,000,000 (or \$50,000,000 if the additional commitment is activated) of our Common Stock to Square Gate, we are only registering for resale 4,273,519 shares of Common Stock under the registration statement that includes this prospectus, which may or may not cover all of the shares we ultimately sell to Square Gate under the ELOC Purchase Agreement. We will not issue more than an aggregate of 4,273,519 shares of Common Stock pursuant to this prospectus. The number of shares to be issued as set forth in this column is without regard for the Beneficial Ownership Limitation.
- (2) The denominator is based on 736,127 shares of Common Stock outstanding as of March 23, 2026, adjusted to include the issuance of the number of shares set forth in the adjacent column that we would have sold to Square Gate, assuming the average purchase price in the first column.
- (3) The closing sale price of our Common Stock on Nasdaq on March 20, 2026, less a 5% discount.

USE OF PROCEEDS

All shares of our Common Stock offered by this prospectus are being registered for resale by the Selling Stockholder identified herein. We will not receive any of the proceeds from the sale of the Shares being offered for sale by the Selling Stockholder.

We may receive up to \$50,000,000 in aggregate gross proceeds from sales of our Common Stock that we may elect to make to Square Gate pursuant to the ELOC Purchase Agreement from time to time after the date of this prospectus. The net proceeds from sales, if any, under the ELOC Purchase Agreement, will depend on the frequency and prices at which we sell our Common Stock to Square Gate after the date of this prospectus. See the sections entitled “*The Equity Purchase Agreement*” and “*Plan of Distribution*” elsewhere in this prospectus for more information.

We expect to use any proceeds that we receive under the ELOC Purchase Agreement for working capital and general corporate purposes. As of the date of this prospectus, we cannot specify with certainty all of the particular uses, and the respective amounts we may allocate to those uses, for any net proceeds we receive. Accordingly, we will retain broad discretion over the use of these proceeds.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our Common Stock and do not anticipate paying any cash dividends on our Common Stock at any time in the foreseeable future. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our Common Stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on, among other factors, our financial condition, operating results, capital requirements, general business conditions, the terms of any future credit agreements and other factors that our board of directors may deem relevant. See the section captioned “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” contained in our Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q for additional information regarding our financial condition.

SELLING STOCKHOLDER

This prospectus covers the resale or other disposition from time to time by the Selling Stockholder identified in the table below of up to 4,273,519 shares of our Common Stock, consisting of (i) up to 4,127,320 shares of Common Stock that we may, in our sole discretion, elect to issue and sell to Square Gate from time to time under the ELOC Purchase Agreement, and (ii) up to 146,199 Commitment Shares (including True-Up Commitment Shares) issuable to Square Gate pursuant to the ELOC Purchase Agreement. We are registering the resale of such shares of Common Stock in order to permit the Selling Stockholder to offer the shares for resale from time to time.

When we refer to the “Selling Stockholder” in this prospectus, we refer to the entity listed in the table below and the permitted transferees that hold any of the Selling Stockholder’s interest in the Shares after the date of this prospectus.

Except for the ownership of the Commitment Shares and Pre-Funded Warrants issued pursuant to the ELOC Purchase Agreement and the transactions contemplated by the ELOC Purchase Agreement and the Registration Rights Agreement, the Selling Stockholder has not had any material relationship with us within the past three years. The Selling Stockholder is not a broker-dealer or an affiliate of a broker-dealer and has represented to us that it acquired the securities in the ordinary course of business and, at the time of acquisition, had no agreements or understandings, directly or indirectly, to distribute such securities.

The table below lists the Selling Stockholder and other information regarding the beneficial ownership (as determined under Section 13(d) of the Exchange Act, and the rules and regulations thereunder) of the shares of Common Stock held by the Selling Stockholder. The second column lists the number of shares of Common Stock beneficially owned by the Selling Stockholder as of March 23, 2026, taking into account the Beneficial Ownership Limitation applicable to the Commitment Shares and Pre-Funded Warrants held by the Selling Stockholder. The third column lists the maximum number of shares of Common Stock being offered by this prospectus by the Selling Stockholder, without regard to any limitations on exercise, conversion or issuance.

Under the terms of the Pre-Funded Warrants, the Selling Stockholder may not exercise such Pre-Funded Warrants to the extent that, after giving effect to such exercise, the Selling Stockholder, together with its affiliates and attribution parties, would beneficially own in excess of 4.99% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise (the “Pre-Funded Warrant Beneficial Ownership Limitation”). The number of shares in the second column reflects this limitation. In addition, no Put Notice under the ELOC Purchase Agreement may cause the aggregate number of shares of Common Stock beneficially owned by the Selling Stockholder and its affiliates to exceed 4.99% of the then issued and outstanding shares of Common Stock (the “ELOC Beneficial Ownership Limitation”).

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The Selling Stockholder may sell all, some or none of the shares in this offering. See “*Plan of Distribution.*”

Name	Number of Common Stock Owned Prior to Offering ⁽¹⁾		Maximum Number of Common Stock to be Offered Pursuant to this Prospectus	Number of Common Stock Owned After Offering ⁽²⁾	
	Number of Shares	Percentage of Outstanding Shares		Number of Shares	Percentage of Outstanding Shares
Square Gate Capital Master Fund, LLC – Series 5	35,342 ⁽³⁾	4.80%	4,273,519 ⁽⁴⁾	-	-

* Less than 1.0%.

- (1) Applicable percentage ownership is based on 736,127 shares of Common Stock outstanding as of March 23, 2026.
- (2) Assumes the sale of all shares being offered pursuant to this prospectus.
- (3) Consists of 35,342 shares of Common Stock issued to the Selling Stockholder as Commitment Shares on January 30, 2026. This figure excludes 62,124 shares of Common Stock issuable upon exercise of Pre-Funded Warrants held by the Selling Stockholder, which Pre-Funded Warrants are subject to the Pre-Funded Warrant Beneficial Ownership Limitation. As a result, the Pre-Funded Warrants are not deemed beneficially owned by the Selling Stockholder for purposes of Rule 13d-3 under the Exchange Act as of the date of this table. If the Pre-Funded Warrant Beneficial Ownership Limitation did not apply, the Selling Stockholder would beneficially own an aggregate of 97,466 shares of Common Stock (consisting of 35,342 outstanding shares plus 62,124 shares issuable upon exercise of Pre-Funded Warrants at an exercise price of \$0.003 per share), representing approximately 13.24% of the outstanding Common Stock. The Pre-Funded Warrant Beneficial Ownership Limitation may be increased or decreased by the Selling Stockholder upon 61 days’ prior notice to the Company, provided that it may not exceed 9.99%.
- (4) The maximum number of shares to be offered pursuant to this prospectus includes up to 4,127,320 Put Shares that we may, in our sole discretion, elect to issue and sell to the Selling Stockholder from time to time under the ELOC Purchase Agreement, and up to 146,199 Commitment Shares (including True-Up Commitment Shares) issuable to the Selling Stockholder pursuant to the ELOC Purchase Agreement. Issuances under the ELOC Purchase Agreement are also subject to the 19.99% Exchange Cap under Nasdaq rules unless an exception applies or stockholder approval is obtained. Christopher Perugini and Elie Himmelfarb share voting and dispositive power over Square Gate Capital Management, LP, which serves as the manager of Square Gate Capital Master Fund, LLC – Series 5. As a result, Mr. Perugini and Mr. Himmelfarb exercise voting control and investment discretion over the securities reported herein and may be deemed to beneficially own such securities. The business address of the Selling Stockholder is 40 Wall Street, Floor 28, Suite 2728, New York, NY 10005.

PLAN OF DISTRIBUTION

We are registering the resale by the Selling Stockholder or its permitted transferees of up to an aggregate of 4,273,519 shares of Common Stock, consisting of (i) up to 4,127,320 shares of Common Stock we may elect, in our sole discretion, to issue and sell to Square Gate under the ELOC Purchase Agreement, from time to time after the date of this prospectus and during the term of the ELOC Purchase Agreement, and (ii) up to 146,199 Commitment Shares (including True-Up Commitment Shares) issuable to Square Gate pursuant to the ELOC Purchase Agreement.

The shares of Common Stock offered by this prospectus may be sold or distributed from time to time by the Selling Stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the Common Stock offered by this prospectus could be effected in one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales made after the date the registration statement of which this prospectus forms a part is declared effective by the SEC;
- through agents;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The Selling Stockholder may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Square Gate is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act. Square Gate may engage one or more registered broker-dealers to effectuate resales, if any, of such Common Stock that it may acquire from us. Such resales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such registered broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Square Gate has informed us that each such broker-dealer it engages to effectuate resales of our Common Stock on its behalf may receive commissions from Square Gate for executing such resales for Square Gate and, if so, such commissions will not exceed customary brokerage commissions.

Square Gate has represented to us that no existing arrangements between the Selling Stockholder and any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the Common Stock offered by this prospectus. Brokers, dealers, underwriters or agents participating in the distribution of the Common Stock offered by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the purchasers, for whom the broker-dealers may act as agent, of the shares sold by the Selling Stockholder through this prospectus. The compensation paid to any such particular broker-dealer by any such purchasers of Common Stock sold by the Selling Stockholder may be less than or in excess of customary commissions. Neither we nor the Selling Stockholder can presently estimate the amount of compensation that any agent will receive from any purchasers of Common Stock sold by the Selling Stockholder.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

Square Gate has represented to us that at no time prior to the date of the ELOC Purchase Agreement has Square Gate, its managing partner, any of their respective officers, or any entity managed or controlled by Square Gate or its managing partner, engaged in or effected, in any manner whatsoever, directly or indirectly, for its own account or for the account of any of its affiliates, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction which establishes a net short position with respect to our Common Stock. Square Gate has agreed that during the term of the ELOC Purchase Agreement, neither Square Gate, its managing partner, any of their respective officers, nor any entity managed or controlled by Square Gate or its managing partner, will enter into or effect, directly or indirectly, any of the foregoing transactions for its own account or for the account of any other such person or entity. Notwithstanding the foregoing prohibition, in accordance with Regulation SHO, the sale after delivery of a Put Notice of such number of shares of Common Stock reasonably expected to be purchased under such Put Notice shall not be deemed a short sale. This means that Square Gate may sell shares it reasonably expects to receive from us under a Put Notice before actually receiving such shares, which sales would not violate the short sale prohibition.

We may from time to time file with the SEC one or more supplements to this prospectus or amendments to the registration statement of which this prospectus forms a part to amend, supplement or update information contained in this prospectus, including, if and when required under the Securities Act, to disclose certain information relating to a particular sale of shares offered by this prospectus by the Selling Stockholder, including with respect to any compensation paid or payable by the Selling Stockholder to any brokers, dealers, underwriters or agents that participate in the distribution of such shares by the Selling Stockholder, and any other related information required to be disclosed under the Securities Act.

We will pay the expenses incident to the registration under the Securities Act of the offer and sale of the Common Stock covered by this prospectus by the Selling Stockholder. The Selling Stockholder will pay any underwriting discounts and commissions and expenses incurred by the Selling Stockholder for brokerage, accounting, tax or legal services or any other expenses incurred by the Selling Stockholder in disposing of the securities.

We have also agreed to indemnify the Selling Stockholder and certain other persons against certain liabilities in connection with the offering of Common Stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Square Gate has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Square Gate specifically for use in this prospectus or any misrepresentation, breach of any representation, warranty, covenant, agreement or obligation by or of Square Gate. If such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

We have advised the Selling Stockholder that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the Selling Stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all Common Stock offered by this prospectus have been sold by the Selling Stockholder. Our Common Stock is listed on The Nasdaq Capital Market tier of Nasdaq under the symbol “ARTL.”

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our Common Stock as of March 23, 2026 by:

- each person, or group of affiliated persons, who we know to beneficially own more than 5% of our Common Stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

The percentage beneficial ownership information shown in the table is based on an aggregate of 736,127 shares of our Common Stock outstanding as March 23, 2026.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security. Under those rules, beneficial ownership includes securities that the individual or entity has the right to acquire, such as through the exercise of stock options, within 60 days of March 23, 2026. Shares subject to options that are currently exercisable or exercisable within 60 days of March 23, 2026 are considered outstanding and beneficially owned by the person holding such options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Except as noted by footnote, and subject to community property laws where applicable, based on the information provided to us, we believe that the persons and entities named in the table below have sole voting and investment power with respect to all shares shown as beneficially owned by them.

Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws. Except as otherwise noted below, the address of each of the individuals and entities named in the table below is c/o Artelo Biosciences, Inc., 505 Lomas Santa Fe, Suite 160, Solana Beach, California 92075.

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<u>Name and Address of Beneficial Owner</u>	<u>Shares</u>	<u>Percentage</u>
5% Stockholders:		
None		
Other Directors and Named Executive Officers:		
Gregory D. Gorgas ⁽¹⁾	32,138	4.2%
Connie Matsui ⁽²⁾	48,702	6.2%
Steven Kelly ⁽³⁾	669	*
Douglas Blayney, M.D. ⁽⁴⁾	695	*
R. Martin Emanuele, Ph.D. ⁽⁵⁾	688	*
Gregory R. Reyes M.D., Ph.D. ⁽⁶⁾	546	*
Tamara A. Favorito ⁽⁷⁾	8,836	1.2%
Mark E. Spring ⁽⁸⁾	556	*
All directors and executive officers as a group (8 persons)	92,830	11.2%

* Less than 1%

- (1) Consists of (i) 1,003 shares of Common Stock held directly by Gregory D. Gorgas, (ii) 134 shares of Common Stock held indirectly by Gorgas Family Trust, (iii) 19,059 shares of Common Stock issuable pursuant to options held directly by Gregory D. Gorgas exercisable within 60 days, (iv) 2,882 shares of Common Stock issued on the conversion of an outstanding note payable, (v) 3,196 warrants representing 3,196 shares of Common Stock which have an exercise price of \$18.72 per common share and expire in October 2030, and (vi) 5,864 warrants representing 5,864 shares of Common Stock which have an exercise price of \$10.20 per common share and expire in October 2030.
- (2) Consists of (i) 210 shares of Common Stock held directly by Connie Matsui, (ii) 725 shares of Common Stock issuable pursuant to options held directly by Connie Matsui exercisable within 60 days, (iii) 11,526 shares of Common Stock issued on the conversion of an outstanding note payable, (v) 12,782 warrants representing 12,782 shares of Common Stock which have an exercise price of \$18.72 per common share and expire in October 2030, and (vi) 23,459 warrants representing 23,459 shares of Common Stock which have an exercise price of \$10.20 per common share and expire in October 2030.
- (3) Consists of (i) 47 shares of Common Stock held by Steven Kelly, and (ii) 622 shares of Common Stock issuable pursuant to options held directly by Steven Kelly exercisable within 60 days.
- (4) Consists of (i) 47 shares of Common Stock held by Douglas Blayney, M.D., and (ii) 648 shares of Common Stock issuable pursuant to options held directly by Douglas Blayney, M.D., exercisable within 60 days.
- (5) Consists of (i) 47 shares of Common Stock held by R. Marty Emanuele, Ph.D., and (ii) 641 shares of Common Stock issuable pursuant to options held directly by R. Marty Emanuele, Ph.D., exercisable within 60 days.
- (6) Consists of 546 shares of Common Stock issuable pursuant to options held directly by Gregory R. Reyes M.D., Ph.D., exercisable within 60 days.
- (7) Consists of (i) 307 shares of Common Stock issuable pursuant to options held directly by Tamara A. Favorito exercisable within 60 days, (ii) 2,058 shares of Common Stock issued on the conversion of an outstanding note payable, (iii) 2,282 warrants representing 2,282 shares of Common Stock which have an exercise price of \$18.72 per common share and expire in October 2030, and (vi) 4,189 warrants representing 4,189 shares of Common Stock which have an exercise price of \$10.20 per common share and expire in October 2030.
- (8) Consists of 556 shares of Common Stock issuable pursuant to options held directly by Mark E. Spring, exercisable within 60 days.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes certain terms of our capital stock and certain provisions of our Articles of Incorporation and Bylaws. This summary does not purport to be complete and is qualified in its entirety by the provisions of our Articles of Incorporation and Bylaws, copies of which are filed with the SEC as exhibits to the registration statement on Form S-1 of which this prospectus forms a part, and to the applicable provisions of Nevada law.

Authorized Capital Stock

Our authorized capital stock consists of 166,689,815 shares of capital stock, of which 166,666,667 shares are designated as common stock, \$0.001 par value per share, and 23,148 shares are designated as preferred stock, \$0.001 par value per share. As of March 23, 2026, there were 736,127 shares of Common Stock issued and outstanding held by approximately 167 holders of record of our Common Stock, and no outstanding shares of preferred stock.

Common Stock

The holders of our Common Stock (i) have equal ratable rights to dividends from funds legally available therefor, when, as and if declared by our board of directors; (ii) are entitled to share in all of our assets available for distribution to holders of Common Stock upon liquidation, dissolution or winding up of our affairs; (iii) do not have preemptive, subscription or conversion rights and there are no redemption or sinking fund provisions or rights; and (iv) are entitled to one non-cumulative vote per share on all matters submitted to a vote of stockholders. The rights, preferences and privileges of the holders of our Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

The Company has authorized 23,148 shares of preferred stock. There is no preferred stock outstanding.

Anti-Takeover Effects of Nevada Law and our Articles of Incorporation and Bylaws.

Certain provisions of Nevada law and certain provisions that are included in our Articles of Incorporation and our Bylaws may have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

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Classified Board. Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes, designated Class I, Class II, and Class III. Each class will be an equal number of directors, as nearly as possible, consisting of one third of the total number of directors constituting the entire board of directors. The term of Class I directors shall terminate on the date of the 2027 annual meeting, the term of the Class II directors shall terminate on the date of the 2028 annual meeting, and the term of the Class III directors shall terminate on the date of the 2026 annual meeting. At each annual meeting of stockholders, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term.

Stockholder Meetings. Our Bylaws provide that a special meeting of stockholders may be called only by our president, by all of the directors when there are no more than three directors, or if there are more than three directors, by any three directors, or by the holder of a majority share of our capital stock.

Stockholders Not Entitled to Cumulative Voting. Our Bylaws do not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our Common Stock entitled to vote in any election of directors could elect all of the directors standing for election, if they chose, other than any directors that holders of our preferred stock may be entitled to elect.

Nevada Business Combination Statutes. The “business combination” provisions of Sections 78.411 to 78.444, inclusive, of the Nevada Revised Statutes, (the “NRS”), generally prohibit a Nevada corporation with at least 200 stockholders of record from engaging in various “combinations” with any interested stockholder for a period of two years after the date of the transaction in which the person became an interested stockholder, unless (a) such transaction or combination is approved by the Board prior to the date the interested stockholder obtained such status, or (b) the combination is approved by the Board and thereafter is approved at a meeting of the stockholders by the affirmative vote of stockholders representing at least 60% of the outstanding voting power held by disinterested stockholders. The prohibition on “combinations” with an interested stockholder extends beyond the expiration of the two-year period, unless:

- the combination was approved by the Board prior to the person becoming an interested stockholder or the transaction by which the person first became an interested stockholder was approved by the Board before the person became an interested stockholder or the combination is later approved by a majority of the voting power held by disinterested stockholders; or
- if the consideration to be paid by the interested stockholder is at least equal to the highest of: (a) the highest price per share paid by the interested stockholder within the two years immediately preceding the date of the announcement of the combination or in the transaction in which it became an interested stockholder, whichever is higher, (b) the market value per share of Common Stock on the date of announcement of the combination and the date the interested stockholder acquired the shares, whichever is higher, or (c) for holders of preferred stock, the highest liquidation value of the preferred stock, if it is higher.

A “combination” is generally defined to include mergers or consolidations or any sale, lease exchange, mortgage, pledge, transfer, or other disposition, in one transaction or a series of transactions, with an “interested stockholder” having: (a) an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation, (b) an aggregate market value equal to 5% or more of the aggregate market value of all outstanding voting shares of the corporation, (c) more than 10% of the earning power or net income of the corporation, and (d) certain other transactions with an interested stockholder or an affiliate or associate of an interested stockholder.

In general, an “interested stockholder” is a person who, together with affiliates and associates, beneficially owns (or within two years, did own) 10% or more of the voting power of the outstanding voting shares of a corporation. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

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Nevada Control Share Acquisition Statutes. The “control share” provisions of Sections 78.378 to 78.3793, inclusive, of the NRS apply to “issuing corporations” that are Nevada corporations with at least 200 stockholders of record, including at least 100 stockholders of record who are Nevada residents, and that conduct business in Nevada directly or through an affiliated corporation. The control share statute prohibits an acquirer, under certain circumstances, from voting its shares of a target corporation’s stock after crossing certain ownership threshold percentages, unless the acquirer obtains approval of the target corporation’s disinterested stockholders. The statute specifies three thresholds: one-fifth or more but less than one-third, one-third or more but less than a majority, and a majority or more, of the outstanding voting power. Generally, once an acquirer crosses one of the above thresholds, those shares acquired within 90 days prior to the shareholder crossing the relevant threshold become “control shares” and such control shares are deprived of the right to vote until disinterested stockholders restore the right. These provisions also provide that if control shares are accorded full voting rights and the acquiring person has acquired a majority or more of all voting power, all other stockholders who do not vote in favor of authorizing voting rights to the control shares are entitled to demand payment for the fair value of their shares in accordance with statutory procedures established for dissenters’ rights.

Our Bylaws provide that we shall be considered an “issuing corporation” as defined in such statutes, irrespective of whether we, as of any date, (i) have 200 or more stockholders of record, at least 100 of whom have had addresses in Nevada appearing on our stock ledger at all times during the 90 days immediately preceding such date, and/or (ii) does business in Nevada directly or through an affiliated corporation.

The effect of the Nevada control share statutes is that the acquiring person, and those acting in association with the acquiring person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders at an annual or special meeting. The Nevada control share law could have the effect of discouraging takeovers of us.

Amendment of Articles of Incorporation and Bylaw Provisions. The amendment of any provision of our Articles of Incorporation (other than the name of the Company) must be approved by the board of directors and shareholders holding a majority of the voting power of the issued and outstanding shares of the Company’s capital stock. The amendment of any provision of our Bylaws may be made by majority vote of the shareholders at any annual meeting or special meeting called for that purpose or by the board of directors, but the board of directors may not alter or repeal any Bylaws adopted by the shareholders.

The provisions of Nevada law, our Articles of Incorporation, and our Bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our Common Stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Equiniti Trust Company, LLC. The transfer agent’s address is 48 Wall Street, 23rd floor, New York, NY 10043.

Market Listing

Our Common Stock is listed on The Nasdaq Capital Market tier of Nasdaq under the symbol “ARTL.”

**MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO
NON-U.S. HOLDERS**

The following is a general discussion of the material U.S. holders (as defined below) with respect to their purchase, ownership and disposition of our convertible notes and warrants purchased in this offering. This discussion is for general information only, is not tax advice and does not purport to be a complete analysis of all the potential tax considerations. This discussion is based upon the provisions of the United States Internal Revenue Code of 1986, as amended, or the Code, existing and proposed Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all in effect as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought any ruling from the Internal Revenue Service, or IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This discussion does not address the tax considerations arising under the laws of any non-U.S., state or local jurisdiction or under U.S. federal gift and estate tax laws. In addition, this discussion does not address any tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies, regulated investment companies, real estate investment trusts or other financial institutions;
- persons subject to the alternative minimum tax or the Medicare contribution tax on net investment income;
- tax-exempt organizations or governmental organizations;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the United States;
- partnerships or other entities or arrangements classified as partnerships for U.S. federal income tax purposes or other pass-through entities (and investors therein);
- persons whose functional currency is not the U.S. dollar;
- persons who hold our convertible notes or warrants as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction or integrated investment;
- persons who hold or receive our convertible notes or warrants pursuant to the exercise of any warrant or option or otherwise as compensation;
- persons who hold or receive our convertible notes or warrants pursuant to conversion rights under convertible instruments;
- persons who do not hold our convertible notes or warrants as a capital asset within the meaning of Section 1221 of the Code; or
- persons deemed to sell our convertible notes or warrants under the constructive sale provisions of the Code.

In addition, if a partnership, entity or arrangement classified as a partnership for U.S. federal income tax purposes holds our convertible notes or warrants, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, entities classified as partnerships for U.S. federal income tax purposes and other pass-through entities that hold our convertible notes or warrants, as well as partners or members in such entities, should consult their tax advisors.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our convertible notes or warrants arising under the U.S. federal estate or gift tax laws or under the laws of any state, local, non-U.S. or other taxing jurisdiction or under any applicable tax treaty. In addition, significant changes in U.S. federal income tax laws were recently enacted. You should consult with your tax advisor with respect to such changes in U.S. tax law as well as potentially conforming changes in state tax laws.

Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are any holder of our Common Stock, warrants other than a partnership (or other entity or arrangement classified as a partnership for U.S. federal income tax purposes) or:

- an individual who is a citizen or resident of the United States (for U.S. federal income tax purposes);
- a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust if it (i) is subject to the primary supervision of a U.S. court and one or more U.S. persons have the authority to control all substantial decisions of the trust or (ii) has made a valid election under applicable Treasury Regulations to be treated as a U.S. person.

Distributions

As described in the section captioned “*Dividend policy*,” we have never declared or paid cash dividends on our capital stock and do not anticipate paying any dividends on our capital stock in the foreseeable future. However, if we do make distributions on our Common Stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our Common Stock, but not below zero, and then will be treated as gain from the sale of stock as described below under “*-Gain on Disposition of Convertible Notes or Warrants.*”

Subject to the discussion below on effectively connected income, backup withholding and foreign accounts, any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by you in the United States) are generally exempt from the withholding tax described in the previous paragraph, subject to the discussion below on backup withholding. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. You should consult your tax advisor regarding any applicable tax treaties that may provide for different rules.

If you hold our Common Stock through a financial institution or other agent acting on your behalf, you will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries. You may be eligible to obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to information reporting and backup withholding at a current rate of 24% unless you establish an exemption, for example, by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Under current U.S. federal income tax law, U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a disposition of our convertible notes or warrants effected by or through a U.S. office of any broker, U.S. or foreign, except that information reporting and such requirements may be avoided if the holder provides a properly executed and appropriate IRS Form W-8 or otherwise meets documentary evidence requirements for establishing non-U.S. holder status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the U.S. through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements may, however, apply to a payment of disposition proceeds if the broker has actual knowledge, or reason to know, that the holder is, in fact, a U.S. person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations will generally be treated in a manner similar to U.S. brokers.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, you may be able to obtain a refund or credit from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance

The Foreign Account Tax Compliance Act and the rules and regulations promulgated thereunder, collectively FATCA, generally impose withholding tax at a rate of 30% on dividends on, and gross proceeds from the sale or other disposition of, our convertible notes or warrants paid to a “foreign financial institution” (as specially defined under these rules), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and gross proceeds from the sale or other disposition of our convertible notes or warrants paid to a “non-financial foreign entity” (as specially defined under these rules) unless such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption. The withholding provisions under FATCA generally apply to dividends on our convertible notes or warrants, and, subject to the proposed regulations described in the next sentence, will apply to gross proceeds of a sale or other disposition of our convertible notes and warrants. The Treasury Department has released proposed regulations (the preamble to which specifies that taxpayers are permitted to rely on them pending finalization) which, if finalized in their present form, would eliminate the federal withholding tax of 30% applicable to the gross proceeds of a disposition of our convertible notes or warrants. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. You should consult your tax advisors regarding the possible implications of FATCA on your investment in our convertible notes or warrants.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our convertible notes or warrants, including the consequences of any proposed change in applicable laws.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Fennemore Craig, P.C., Reno, Nevada.

EXPERTS

The consolidated financial statements of Artelo Biosciences, Inc. incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2025, and as updated on Form 8-K filed with the SEC on March 17, 2026, have been so incorporated in reliance on the report (which contains an explanatory paragraph regarding our ability to continue as a going concern) of MaloneBailey, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our Common Stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our Common Stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

You may request a copy of this prospectus by contacting us at: Artelo Biosciences, Inc. at 505 Lomas Santa Fe, Suite 160, Solana Beach, CA or 858-925-7049. Our website address is www.artelobio.com and such reports and documents may be accessed from <https://ir.artelobio.com/>. Information contained on or accessible through Artelo's website is not a part of the registration statement of which this prospectus forms a part, and the inclusion of Artelo's website address in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information we file with it, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding those portions of any Form 8-K that are not deemed “filed” pursuant to the General Instructions of Form 8-K):

- our Annual Report on Form 10-K for the year ended December 31, 2025, filed with the SEC on [February 24, 2026](#);
- our Current Reports on Form 8-K filed on [January 2, 2026](#), [January 16, 2026](#), [January 30, 2026](#), [February 5, 2026](#), [February 5, 2026](#), [March 6, 2026](#), [March 17, 2026](#), and [March 18, 2026](#); and
- the description of our Common Stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2025, filed with the SEC on February 24, 2026, including any amendment or report filed for the purpose of updating such description.

This prospectus forms part of a registration statement on Form S-1 that we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement or the documents incorporated by reference herein and therein. For further information with respect to us and the securities that we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement and the documents incorporated by reference herein and therein. You should rely only on the information incorporated by reference or provided in this prospectus and registration statement. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus and the documents incorporated by reference herein and therein is accurate as of any date other than the respective dates thereof.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

We will provide you without charge, upon your oral or written request, with a copy of any or all reports, proxy statements and other documents we file with the SEC, as well as any or all of the documents incorporated by reference in this prospectus or the registration statement (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into such documents). Requests for such copies should be directed to Artelo Biosciences, Inc., Attn: Chief Executive Officer, 505 Lomas Santa Fe, Suite 160, Solana Beach, California, 92075. You may also direct any requests for documents to us by telephone at (858) 925-7049.



Artelo Biosciences, Inc.

Up to 4,273,519 Shares of Common Stock

PRELIMINARY PROSPECTUS

March 24, 2026

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses paid or payable by the registrant in connection with this offering. All amounts shown are estimates except for the SEC registration fee.

	Amount Paid or to Be Paid
SEC registration fee	\$ 2,637.16
Printing expenses	\$ 2,000.00
Legal fees and expenses	\$ 60,000.00
Accounting fees and expenses	\$ 20,000.00
Other fees and expenses	\$ 5,362.84
Total	<u>\$ 90,000.00</u>

Item 14. Indemnification of Directors and Officers.

The Company's Articles of Incorporation and Bylaws provide that, to the fullest extent permitted by the laws of the State of Nevada, the Company shall indemnify any officer or director of the Company, who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he/she is or was or has agreed to serve at the request of the Company as a director, officer, employee or agent of the Company, or while serving as a director or officer of the Company, is or was serving or has agreed to serve at the request of the Company as a director, officer, employee or agent (which, for purposes hereof, shall include a trustee, partner or manager or similar capacity) of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity. For the avoidance of doubt, the foregoing indemnification obligation includes, without limitation, claims for monetary damages against the indemnitee to the fullest extent permitted under Section 78.7502 of the Nevada Revised Statutes.

The indemnification provided shall be from and against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the indemnitee or on the indemnitee's behalf in connection with such action, suit or proceeding and any appeal therefrom, but shall only be provided if the indemnitee acted in good faith and in a manner that the indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action, suit or proceeding, had no reasonable cause to believe the indemnitee's conduct was unlawful.

In the case of any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that he/she is or was a director, officer, employee or agent of the Company, or while serving as a director or officer of the Company, is or was serving or has agreed to serve at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, no indemnification shall be made in respect of any claim, issue or matter as to which the indemnitee shall have been adjudged to be liable to the Company unless, and only to the extent that, the Nevada courts or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, the indemnitee is fairly and reasonably entitled to indemnity for such expenses which the Nevada courts or such other court shall deem proper.

The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that he/she did not act in good faith and in a manner which the indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the indemnitee's conduct was unlawful.

To the extent that indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. If a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer or controlling person of our company in the successful defense of any action, suit or proceeding) is asserted by any of our directors, officers or controlling persons in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of that issue.

The rights conferred in the Company's Articles of Incorporation and Bylaws are not exclusive, and the Company is authorized to enter into indemnification agreements with its directors, officers, employees, and agents and to obtain insurance to indemnify such persons. The Company may not retroactively amend the Bylaws to reduce its indemnification obligations to directors, officers, employees, and agents.

The Company has entered into indemnification agreements with its directors and executive officers that provide the maximum indemnity allowed to directors and executive officers by Section 78.7502 of the Nevada Revised Statutes and also to provide for certain additional procedural protections, in addition to the indemnification provided for in the Company's Articles of Incorporation and Bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

The Company has purchased and currently intends to maintain insurance on behalf of each and any person who is or was a director or officer of the Company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

Item 15. Recent Sales of Unregistered Equity Securities.

We have sold the securities described below within the past three years which were not registered under the Securities Act. All of the sales listed below were made pursuant to an exemption from registration afforded by Section 4(a)(2) of the Securities Act (and Regulation D thereunder), unless otherwise indicated.

On May 13, 2022, we executed a private placement to Lincoln Park Capital Fund, LLC pursuant to which we have the right to sell to Lincoln Park up to \$20,000,000 in shares of our Common Stock, subject to certain limitations, from time to time over the 36-month period commencing on the date that the conditions set forth in the purchase agreement have been satisfied, which includes that a registration statement covering the resale of the shares is declared effective by the SEC. We issued 1,086 shares of our Common Stock to Lincoln Park as consideration for its commitment to purchase our shares under the Purchase Agreement. In the Purchase Agreement, Lincoln Park represented to the Company, among other things, that it was an "accredited investor" (as such term is defined in Rule 501(a) of Regulation D under the Securities Act of 1933, or the Securities Act). The securities were sold by the Company under the Purchase Agreement in reliance upon an exemption from the registration requirements under the Securities Act afforded by Section 4(a)(2) of the Securities Act. As of December 31, 2025, in accordance with the Equity Line, the Company issued 23,633 shares of the Company's Common Stock.

Between April 27, 2025 and May 1, 2025, we entered into subscription agreements with various investors, pursuant to which the Company issued convertible notes to the investors in an aggregate principal amount of \$900,000. A portion of the convertible notes are convertible into shares of our Common Stock, at the election of each investor, and the remaining portion of each note will be converted into warrants to purchase shares of our Common Stock. The sale and issuance of the convertible notes closed on May 1, 2025. The notes accrue interest at a rate of 12.0% per annum. All unpaid principal, together with any then unpaid and accrued interest and other amounts payable thereunder, shall be due and payable on October 28, 2025. Effective October 28, 2025 (the "closing date"), we entered into an agreement with the holders of the convertible notes, pursuant to which we issued and sold to the convertible note holders, by converting all or a portion of the unconverted "Voluntary Conversion" portion of unpaid principal balance and accrued interest due to the convertible noteholders upon the maturity of the convertible notes: (i) newly issued convertible notes in an aggregate principal amount of \$690,154.69; and (ii) five-year warrants to purchase an aggregate of 146,067 shares of common stock, at an exercise price of \$10.20 per share. The newly issued convertible notes will accrue interest at a rate of 12% per annum, which will adjust to 20% upon an event of default (as defined therein). All unpaid principal, together with any then unpaid and accrued interest and other amounts payable thereunder, shall be due and payable six months after the closing date.

On June 24, 2025, we entered into a securities purchase agreement with certain accredited investors for the issuance and sale in a private placement of (i) 45,615 shares of Common Stock, (ii) up to 31,060 shares of Common Stock issuable upon the exercise of pre-funded warrants (the “Pre-Funded Warrants”), (iii) up to 153,351 shares of Common Stock issuable upon the exercise of common warrants at an exercise price of \$17.46 per share (the “\$17.46 Warrants”), and (iv) 76,678 shares of Common Stock issuable upon the exercise of warrants at an exercise price of \$30.00 per share (the “\$30.00 Warrants”). The private placement was priced at the market on June 24, 2025 and closed on June 26, 2025. Each share or, in lieu of shares, each Pre-Funded Warrant, was issued and sold in the private placement along with two (2) \$17.46 Warrants and one (1) \$30.00 Warrant. The combined purchase price for the securities was (i) \$18.585 per share of Common Stock and three accompanying warrants and (ii) \$18.582 per Pre-Funded Warrant and three accompanying warrants.

On August 1, 2025, we entered into a securities purchase agreement (the “Purchase Agreement”) for an at-the market PIPE (private investment in public equity) for the purchase and sale of securities at a price of \$31.35 per security, consisting of: (a) 302,229 shares of Common Stock (or pre-funded warrants in lieu thereof); (b) three-year warrants to purchase 302,229 shares of Common Stock at an exercise price of \$30.60 per share; and (c) three-year warrants to purchase 302,229 shares of Common Stock at an exercise price of \$150.00 per share, for expected aggregate gross proceeds of approximately \$9.475 million. We agreed that the net proceeds of the sale would be used to purchase Solana. However, on August 19, 2025, we entered into a Termination and Mutual Release Agreement (the “Purchase Termination Agreement”), which terminates in its entirety, effective as of the August 19, 2025, the Purchase Agreement, the three-year warrants, and any other certificates, agreements, or instruments executed in connection therewith. Concurrently with execution of the Purchase Termination Agreement, the Company paid \$50,000 to TingleMerrett LLP, counsel to the investors, for legal fees incurred by the investors in connection with the transaction.

Effective October 28, 2025, we entered into the October 2025 Subscription Agreement with such investors, pursuant to which we issued and sold to such investors, and such investors purchased (by converting all or a portion of the unconverted “Voluntary Conversion” portion of unpaid principal balance and accrued interest due to such investors upon the maturity of the May 2025 Notes): (i) the Notes in an aggregate principal amount of \$690,154.69; and (ii) the \$10.20 Warrants to purchase an aggregate of 146,067 shares of Common Stock, at an exercise price of \$10.20 per share. The sale and issuance of the Notes and \$10.20 Warrants closed effective as of the Closing Date.

On January 30, 2026, in connection with our entry into the ELOC Purchase Agreement with Square gate, we issued an aggregate of 97,466 Commitment Shares having a stated aggregate value of \$500,000, consisting of 35,342 shares of our common stock and pre-funded warrants to purchase up to 62,124 shares of our common stock at an exercise price of \$0.003 per share, with no expiration date. These securities were issued as a commitment fee pursuant to the ELOC Purchase Agreement with Square Gate. No underwriting discounts or commissions were paid with respect to these issuances.

On March 12, 2026, we entered into a securities purchase agreement with Vanquish Funding Group Inc., pursuant to which we issued a 12% bridge note that matures on January 15, 2027, in the aggregate principal amount of \$237,300, which includes an original issue discount of \$27,300, for an aggregate purchase price of \$210,000. Solely upon the occurrence and continuation of an Event of Default (as defined in the bridge note), the buyer shall have the right, but not the obligation, to convert all or any portion of the outstanding balance of the bridge note, including principal, accrued interest, and any applicable default amount, into shares of our common stock. The conversion price is the greater of (i) \$0.125 and (ii) 75% of the lowest trading price of our common stock during the ten (10) trading days immediately preceding the applicable conversion date.

On March 12, 2026, we entered into a securities purchase agreement with Boot Capital LLC, pursuant to which we issued a 12% bridge note that matures on January 15, 2027, in the aggregate principal amount of \$113,000, which includes an original issue discount of \$13,000, for an aggregate purchase price of \$100,000. Solely upon the occurrence and continuation of an Event of Default (as defined in the bridge note), the buyer shall have the right, but not the obligation, to convert all or any portion of the outstanding balance of the bridge note, including principal, accrued interest, and any applicable default amount, into shares of our common stock. The conversion price is the greater of (i) \$0.125 and (ii) 75% of the lowest trading price of our common stock during the ten (10) trading days immediately preceding the applicable conversion date.

Each of the foregoing issuances was made in a transaction not involving a public offering pursuant to an exemption from the registration requirements of the Securities Act in reliance upon Section 4(a)(2) of the Securities Act, or Regulation D or Regulation S promulgated under the Securities Act. Any shares of Common Stock that may be issued upon conversion of the Notes will be issued in reliance upon Section 3(a)(9) of the Securities Act as involving an exchange exclusively with our security holders.

Item 16. Exhibits and Financial Statement Schedules.

- (a) Reference is made to the attached Exhibit Index.
- (b) No financial statement schedules are provided because the information called for is not required or is shown in the financial statements or the notes thereto.

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.
 - (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; *provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
- (8) The undersigned registrant hereby undertakes that:
 - (i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

Exhibit No.	Description
3.1	Articles of Incorporation, as amended (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed on May 11, 2023)
3.2	Certificate of Change (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on June 13, 2025)
3.3	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on April 21, 2023)
3.4	Certificate of Amendment to Bylaws (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on September 10, 2025)
3.5	Certificate of Amendment to Bylaws (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on November 14, 2025)
3.6	Certificate of Change (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on March 6, 2026)
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 filed on December 16, 2020)
4.2	Form of Warrant (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on May 1, 2025)
4.3	Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on June 26, 2025)
4.4	Form of \$5.82 Warrant (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed on June 26, 2025)
4.5	Form of \$10.00 Warrant (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed on June 26, 2025)
4.6	Form of Prefunded Warrant (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on August 4, 2025)
4.7	Form of Market Priced Warrant (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed on August 4, 2025)
4.8	Form of \$50.00 Warrant (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed on August 4, 2025)
4.9	Common Stock Warrant issued to ABK Labs, Inc., dated August 1, 2025 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on August 7, 2025)
4.10	Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on September 5, 2025)
4.11	Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on October 1, 2025)
4.12	Form of Convertible Note (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on October 31, 2025)
4.13	Form of Warrant (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on October 31, 2025)
4.14	Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on February 5, 2026)
5.1*	Opinion of Fennemore Craig, P.C.
10.1	Securities Purchase Agreement by and between the Company and Gregory D. Gorgas dated April 3, 2017 (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on April 7, 2017)
10.2+	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on May 8, 2017)
10.3	Stock Purchase Agreement dated May 4, 2017 (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed on May 8, 2017)
10.4	Form of Private Placement Subscription Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 4, 2017)
10.5	Form of Registration Rights Agreement (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on August 4, 2017)
10.6	Stock Purchase Agreement dated August 1, 2017 (incorporated by reference to Exhibit 10.6 to the Current Report on Form 8-K filed on August 4, 2017)
10.7+	Material and Data Transfer, Option and License Agreement dated as of December 20, 2017 by and between the Company and NEOMED Institute (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on January 16, 2018)

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10.8+	First Amendment to Material and Data Transfer, Option and License Agreement by and between the Company and NEOMED Institute, dated as of January 4, 2019 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on April 15, 2019)
10.9+	License Agreement with Stony Brook University, by and between the Company and Stony Brook University, dated January 18, 2018 (incorporated by reference to Exhibit 10.20 to the Registration Statement on Form S-1/A filed on April 17, 2018)
10.10#	2018 Equity Incentive Plan, as amended, and Forms of Award Agreement thereunder (incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 filed on December 16, 2020)
10.11#	Amended and Restated Employment Agreement by and between the Company and Gregory D. Gorgas dated August 30, 2019 (incorporated by reference to Exhibit 10.3 to the Annual Report on Form 10-K filed on November 25, 2019)
10.12#	Amendment to Amended and Restated Employment Agreement by and between the Company and Gregory D. Gorgas dated October 26, 2025 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on October 27, 2025)
10.13	Form of Note and Warrant Subscription Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on May 1, 2025)
10.14	Form of Convertible Note (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on May 1, 2025)
10.15	Form of Securities Purchase Agreement by and between Artelo Biosciences Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on June 26, 2025)
10.16	At-The-Market Offering Agreement by and among the Company and R.F. Lafferty & Co., Inc., dated as of July 18, 2025 (incorporated by reference to Exhibit 1.1 to the Current Report on Form 8-K filed on July 18, 2025)
10.17	Form of Securities Purchase Agreement by and between Artelo Biosciences, Inc. and the investors named therein (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 4, 2025)
10.18	Form of Termination and Mutual Release Agreement by and between Artelo Biosciences, Inc. and the investors named therein (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 20, 2025)
10.19	Consulting Agreement by and between Artelo Biosciences, Inc. and ABK Labs, Inc., dated August 1, 2025 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 7, 2025)
10.20	Termination Agreement by and between Artelo Biosciences, Inc. and ABK Labs, Inc., dated August 19, 2025 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on August 20, 2025)
10.21	Cooperation Letter Agreement dated October 15, 2025, among the Company and the Farb Parties (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on October 17, 2025)
10.22#	Employment Agreement by and between the Company and Mark E. Spring dated October 26, 2025 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on October 27, 2025)
10.23	Form of Subscription Agreement by and between Artelo Biosciences Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on October 31, 2025)
10.24	Equity Purchase Agreement, dated as of January 30, 2026, by and between Artelo Biosciences, Inc. and Square Gate Capital Master Fund, LLC - Series 5 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on February 5, 2026)
10.25	Registration Rights Agreement, dated as of January 30, 2026, by and between Artelo Biosciences, Inc. and Square Gate Capital Master Fund, LLC - Series 5 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on February 5, 2026)
10.26	Securities Purchase Agreement, dated as of March 12, 2026, by and between Artelo Biosciences, Inc. and Vanquish Funding Group Inc. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on March 18, 2026)
10.27	Securities Purchase Agreement, dated as of March 12, 2026, by and between Artelo Biosciences, Inc. and Boot Capital LLC (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on March 18, 2026)
10.28	Bridge Note, dated March 12, 2026, by and between Artelo Biosciences, Inc. and Vanquish Funding Group Inc. (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on March 18, 2026)
10.29	Bridge Note, dated March 12, 2026, by and between Artelo Biosciences, Inc. and Boot Capital LLC (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed on March 18, 2026)
23.1*	Consent of MaloneBailey, LLP, independent registered public accounting firm
23.2*	Consent of Fennemore Craig, P.C. (included in Exhibit 5.1)
24.1*	Power of Attorney (included on the signature page to this registration statement)
107*	Filing Fee Table

* Filed herewith.

Management contracts or compensatory plans, contracts or arrangements.

+ Certain portions of this exhibit have been omitted.

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 Solana Beach, State of California, on March 24, 2026.

ARTELO BIOSCIENCES, INC.

By: /s/ Gregory D. Gorgas

Name: Gregory D. Gorgas

Title: President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints, jointly and severally, Gregory D. Gorgas and Mark E. Spring, or either of them, as his or her attorney-in-fact, with full power of substitution and resubstitution, 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), and any and all registration statements filed pursuant to Rule 462 under the Securities Act of 1933, as amended, in connection with or related to the offering contemplated by this registration statement and its amendments, if any, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorney to any and all amendments to said registration statement.

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, Secretary and Director (Principal Executive Officer)	March 24, 2026
<u>/s/ Mark E. Spring</u> Mark E. Spring	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 24, 2026
<u>/s/ Connie Matsui</u> Connie Matsui	Director, Chair of the Board	March 24, 2026
<u>/s/ Steven Kelly</u> Steven Kelly	Director	March 24, 2026
<u>/s/ Douglas Blayney</u> Douglas Blayney, M.D.	Director	March 24, 2026
<u>/s/ R. Martin Emanuele</u> R. Martin Emanuele, Ph.D.	Director	March 24, 2026
<u>/s/ Gregory Reyes</u> Gregory Reyes, M.D., Ph.D.	Director	March 24, 2026
<u>/s/ Tamara A. Favorito</u> Tamara A. Favorito	Director	March 24, 2026

FENNEMORE.

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

March 24, 2026

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

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 common stock of the Company under a Registration Statement on Form S-1 (the “Registration Statement”), relating to the proposed sale by Square Gate Capital Master Fund, LLC – Series 5, as the selling stockholder (the “Selling Stockholder”), of up to 4,273,519 shares (the “Registered Shares”) of the Company’s common stock, par value \$0.001 per share (the “Common Stock”), consisting of (i) up to 146,199 shares of Common Stock issued or issuable to the Selling Stockholder as Commitment Shares (as defined in the Purchase Agreement), including shares issuable upon exercise of the Pre-Funded Warrant (as defined below), and (ii) up to 4,127,320 shares of Common Stock that may be purchased by the Selling Stockholder from time to time pursuant to the terms of an Equity Purchase Agreement between the Selling Stockholder and the Company dated January 30, 2026 (the “Purchase Agreement”).

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 Purchase Agreement;
 4. The Registration Rights Agreement between the Company and the Selling Stockholder, dated as of January 30, 2026 (the “Registration Rights Agreement”);
 5. The Pre-Funded Warrant to purchase Common Stock at an exercise price of \$0.003 per share dated February 5, 2026 (the “Pre-Funded Warrant”);
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6. Resolutions of the Board of Directors of the Company, dated as of January 30, 2026 (the “Resolutions”), which, among other things, authorize the Company’s entry into and performance of its obligations under the Purchase Agreement, the Registration Rights Agreement, the Pre-Funded Warrant and the filing of the Registration Statement; 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 Company has reserved sufficient shares of the Common Stock such that shares of the Company’s Common Stock available for issuance are equal to or greater than the Registered Shares (including all shares issuable upon exercise of the Pre-Funded Warrant and any Commitment Shares that may be required pursuant to the Purchase Agreement), and we assume that the Company will continue to reserve such number of shares of Common Stock until the purchase of the Registered Shares pursuant to the Purchase Agreement is complete.

Based upon the foregoing, and subject to the limitations, exclusions and exceptions set forth herein, it is our opinion that: the issuance of the Registered Shares (including the shares of Common Stock issuable upon exercise of the Pre-Funded Warrant) has been duly authorized by the Company and, when issued and paid for in accordance with the terms of the Registration Statement, the Purchase Agreement, the Registration Rights Agreement, or the Pre-Funded Warrant, as applicable, the Registered 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.

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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 inclusion of this opinion as an exhibit to the Registration Statement shall constitute your agreement to the foregoing.

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 Securities Act of 1933, as amended (the "Act"), with respect to the Registered 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 Registered Shares.

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-1 of our report dated February 23, 2026, except for Notes 1, 2, 6, 7, 9, and 12 which are dated March 17, 2026 with respect to the audited consolidated financial statements of Artelo Biosciences, Inc. for the years ended December 31, 2025 and 2024.

We also consent to the references to us under the heading "Experts" in such Registration Statement.

/s/ MaloneBailey, LLP
www.malonebailey.com
Houston, Texas
March 24, 2026

Calculation of Filing Fee Tables

Form S-1
(Form Type)

Artelo Biosciences, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾⁽²⁾	Proposed Maximum Offering Price Per Unit ⁽²⁾	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Newly Registered Securities								
Fees to Be Paid	Equity	Common Stock, par value \$0.001 per share	457(c)	4,273,519	\$4.52	\$19,316,305.88	0.00013810	\$2,667.58
	Total Offering Amounts					\$19,316,305.88		\$2,667.58
	Total Fees Previously Paid							-
	Total Fee Offsets							-
	Net Fee Due							\$2,667.58

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this registration statement shall also cover any additional shares of the registrant's common stock, par value \$0.001 per share (the "Common Stock"), that become issuable 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 the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act based on the average of the high and low prices of the registrant's common stock on the Nasdaq Capital Market on March 17, 2026.