# **PROSPECTUS**



# ARTELO BIOSCIENCES, INC. 15,000,000 Shares of common stock

This prospectus relates to the offer and sale from time to time of up to 15,000,000 shares of common stock, par value \$0.001 per share, of Artelo Biosciences, Inc., a Nevada corporation, by Lincoln Park Capital Fund, LLC, or Lincoln Park, referred to herein as the selling stockholder.

The shares of common stock being offered by the selling stockholder may be issued pursuant to the purchase agreement dated May 13, 2022 that we entered into with Lincoln Park. See "The Lincoln Park Transaction" for a description of that agreement and "Selling Stockholder" for additional information regarding Lincoln Park. The prices at which Lincoln Park may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder.

The selling stockholder may sell the shares of 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 the shares of common stock being registered pursuant to this prospectus. The selling stockholder is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the "Securities Act").

The selling stockholder will pay all brokerage fees and commissions and similar expenses. We will pay the expenses (except brokerage fees and commissions and similar expenses) incurred in registering the shares, including legal and accounting fees. See "Plan of Distribution."

We are a "smaller reporting company" as those terms are defined under the federal securities laws and, as such, have elected to comply with certain reduced public company disclosure and reporting requirements.

Our shares of common stock are quoted for trading on the Nasdaq Capital Market under the symbol "ARTL." On May 27, 2022, the closing price of our shares of common stock was \$0.345 per share.

An investment in our common stock involves a high degree of risk. Before buying any shares you should carefully read the discussion of the material risks of investing in our common stock in "Risk Factors" beginning on page 7 of this prospectus.

Neither the Securities and Exchange Commission nor any other state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 1, 2022

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This prospectus is part of a registration statement on Form S-1 that we filed with the Securities and Exchange Commission (the "SEC"), which includes exhibits and provides more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC, together with the additional information described under the heading "Where You Can Find More Information" before making your investment decision. The selling stockholder may, from time to time, sell the securities offered by them described in this prospectus. We will not receive stockholder proceeds from the sale by such selling stockholder of the securities offered by them described in this prospectus.

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 or any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. Neither we nor the selling shareholder take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor the selling stockholder will make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

Except as otherwise set forth in this prospectus, neither we nor the selling stockholder have taken any action to permit a public offering of these securities outside the United States or to permit the possession or distribution of this prospectus outside the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to the offering of these securities and the distribution of this prospectus outside the United States.

We may also provide a prospectus supplement or post-effective amendment to the registration statement to add information to, or update or change information contained in, this prospectus. You should read both this prospectus and any applicable prospectus supplement or post-effective amendment to the registration statement together with the additional information to which we refer you in the sections of this prospectus entitled "Where You Can Find More Information."

We use our registered trademark and trade name, such as Artelo Biosciences®, in this prospectus. This prospectus may also include trademarks, trade names and service marks that are the property of other organizations. Solely for convenience, trademarks and trade names referred to in this prospectus appear without the ® and TM symbols, but those references are not intended to indicate that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that are based on management's beliefs and assumptions and on information currently available to management. Some of the statements in the sections captioned "Risk Factors," "Business," and elsewhere contain forward-looking statements. In some cases, you can identify these statements by terms such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of these terms or other comparable expressions that convey uncertainty of future events or outcomes, although not all forward-looking statements contain these terms.

These statements involve risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- · our plans to obtain funding for our operations, including funding necessary to develop, manufacture and commercialize our product candidates:
- the ability of any current and future funding to meet our capital requirements;
- the expected timing of the initiation and completion of our clinical studies;
- the size and growth of the markets for our product candidates;
- · our commercialization, marketing, and manufacturing capabilities and strategies;
- any impact of the global COVID-19 pandemic, or responses to the pandemic, on our business, clinical trials or personnel;
- our ability to compete with companies currently producing alternative treatment methods;
- the cost, timing and outcomes of any potential litigation involving our product candidates;
- regulatory developments in the US and in non-US countries;
- the development, regulatory approval, efficacy and commercialization of competing product candidates;
- · our ability to retain key scientific or management personnel;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our products and technology;
- the terms and conditions of licenses granted to us and our ability to license additional intellectual property related to our product candidates, as appropriate;
- · our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates;
- · potential claims related to our intellectual property;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our ability to regain compliance with applicable stock exchange listing requirements;
- our ability to develop and maintain our corporate infrastructure, including our internal controls;
- our ability to develop innovative new product candidates; and
- · our financial performance.

The forward-looking statements contained in this prospectus are based on various assumptions, whether or not identified in this prospectus, and on Artelo's current expectations, beliefs, and assumptions and are not predictions of actual performance. These forward-looking statements involve a number of risks, uncertainties (many of which are beyond Artelo's control), or other assumptions that may cause actual results or performance to differ materially from those expressed or implied by these forward-looking statements. We discuss many of these risk and uncertainties in greater detail under the section entitled "Risk Factors" contained in this prospectus and in our SEC filings. If any of these risks or uncertainties materialize, or should any of these assumptions prove incorrect, actual results may differ materially from those discussed in or implied by these forward-looking statements. There can be no assurance that future developments affecting Artelo will be those that have been anticipated.

Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in any accompanying prospectus supplement.

These forward-looking statements made by us in this prospectus and any accompanying prospectus supplement speak only as of the date of this prospectus and any accompanying prospectus supplement. Except as required under the federal securities laws and rules and regulations of the SEC, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Transitional Report on Form 10-KT, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

You should read this prospectus and any accompanying prospectus supplement completely and with the understanding that our actual future results, levels of activity and performance as well as other events and circumstances may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

#### PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. This summary may not contain all the information you should consider before investing in our common stock and warrants. You should carefully read this prospectus in its entirety before investing in our common stock and warrants, including the sections titled Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and related notes included elsewhere in this prospectus. Unless the context otherwise requires, the terms "Artelo Biosciences," "Artelo," "the Company," "our company," "we," "us," and "our," or other similar terminology, refer to Artelo Biosciences, Inc.

#### **Corporate Overview**

We incorporated in the State of Nevada on May 2, 2011, and are presently based in San Diego County, California. We are a clinical stage biopharmaceutical company focused on the development of therapeutics that target lipid-signaling pathways, including the endocannabinoid system (the "ECS"), a family of receptors and neurotransmitters that form a biochemical communication network throughout the body. Our board of directors and management team are highly experienced and have a successful history of development, regulatory approval and commercialization of pharmaceuticals.

Our product candidate pipeline broadly leverages leading scientific methodologies, balances risk across mechanism 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 cannabinoid agonist G protein-coupled receptor ("GPCR") targeting synthetic small molecule program, ART27.13, as a potential treatment for anorexia associated with cancer in a Phase 1b/2a trial, designated CAReS (Cancer Appetite Recovery Study). Our second program, ART26.12 is a small molecule platform of inhibitors of fatty acid binding proteins, notably Fatty Acid Binding Protein 5 ("FABP5"), being studied both as a cancer therapeutic and in anxiety-related disorders, including post-traumatic stress disorder. In addition, we are also advancing ART12.11 ("CBD cocrystal"), our patented solid-state composition of cannabidiol ("CBD"). The COVID-19 pandemic has created uncertainties in the expected timelines for clinical stage biopharmaceutical companies such as us, and because of such uncertainties, we are unable to predict our expected timelines with any degree of certainty at this time.

We are currently developing two patent protected product candidates that we obtained through our in-licensing activities. Our first program, ART27.13, is being developed for cancer-related anorexia. ART27.13 is a peripherally restricted high-potency dual CB<sub>1</sub> and CB<sub>2</sub> receptor full-receptor agonist, which was originally invented at AstraZeneca plc ("AstraZeneca"). We exercised our option to exclusively license this product candidate through the NEOMED Institute ("NEOMED"), a Canadian not-for-profit corporation, renamed adMare in June 2019. 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, 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 UK, US and Canadian regulators indicate 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. We have been enrolling patients steadily since that time. The results of the Phase 1 stage are intended to determine the most effective and safe dose recommended for the Phase 2 portion of CAReS. We expect patient enrollment will be completed for the planned three dosing cohorts of Phase 1 in the first half of 2022 and we plan to announce results immediately after the data is verified. Depending on the results, we may elect to enroll an optional fourth cohort of six patients at a higher dose before making a determination as to which dose is selected for the Phase 2 stage of CAReS. We experienced minor delays due to COVID-19; however, we do not foresee significant impacts, but we are aware the situation could change and we are working to mitigate any adverse effects that may materialize due to the pandemic or its aftermath.

Our second in-licensed program is a platform of small-molecule inhibitors of fatty acid binding proteins, notably FABP5 acquired from Stony Brook University ("SBU"), which we have designated ART26.12. To date, SBU has received approximately \$8.0 million in funding from the National Institutes of Health to develop these candidates including a \$4.2 million grant in 2020 to advance research of FABP5 inhibition in prostate cancer. Fatty acid binding proteins ("FABPs") are attractive therapeutic targets, however, the high degree of sequence and structural similarities among family members have 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 SBU discovered the chemistry for creating what we believe to be highly specific and potent small molecule inhibitors of FABP5. In addition to its potential as a synthetic endocannabinoid modulator, FABP5 plays an important role in lipid signaling and is believed to be an attractive target for cancer drug development. Large amounts of human biomarker and animal model data support FABP5 as an oncology target, including triple negative breast cancer and castration-resistant prostate cancer. We licensed exclusive world-wide rights to these inhibitors from SBU in all fields. Through our sponsored research we have subsequently identified a potential role for FABP5 inhibition to treat anxiety disorders, such as Post Traumatic Stress Disorder ("PTSD") and have filed a patent with method claims covering the use in psychological disorders. We have also been awarded a research grant in Canada to expand on our earlier research at the University of Western Ontario in this new development area. While anxiety, pain, and inflammation are in early research stage, the potential use in treating cancer is our current focus. The program is in the beginning stages of regulatory-enabling studies. We anticipate clinical studies in cancer could begin in early 2023 depending, in part, on the ongoing impact of the COVID-19 pandemic and the ability of selected contract research organizations to perform required studies. The COVID-19 global pandemic has created uncertainties in the expected timelines for clinical stage biopharmaceutical companies such as us, and because of such uncertainties, we are unable to accurately predict our expected timelines at

In addition to our in-licensed programs, we have internal discovery research initiatives which resulted in ART12.11, a proprietary cocrystal composition of CBD. 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 cocrystal exists as a single crystal form and as such is anticipated to have advantages over other solid forms of CBD that exhibit polymorphism. Anticipated advantages of this single crystal structure include improved stability, solubility, and a more consistent absorption profile. We believe these features will result in more consistent and improved bioavailability and may lead to improved safety and efficacy.

Presently, we have one U.S. patent, one U.S. patent application, and two foreign patent applications 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 have superior pharmaceutical properties compared to non-cocrystal CBD products under development at other competing companies to treat cancer, Inflammatory Bowel Disease ("IBD"), PTSD, and other potential indications.

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

Product Candidate Pipeline:

<b>Product Candidate</b>	<b>Target Indications</b>	<b>Development Phase</b>	Market Size		
ART27.13 – Synthetic Cannabinoid Agonist	Anorexia associated with cancer	Clinical	Cancer anorexia cachexia syndrome >\$2 billion		
ART26.12 – FABP5 inhibitors	Prostate cancer and Breast cancer and Post-Traumatic Stress Disorder (PTSD)		Prostate cancer: \$9 billion Breast cancer: \$18 billion PTSD: \$7 billion		
Cocrystal	Inflammatory Bowel Disease (IBD), Post-Traumatic Stress Disorder (PTSD), and other potential indications including cancer		IBD: \$7 billion PTSD: \$7 billion		

# Background

The ECS is composed of cannabinoid receptors, endogenous receptor ligands ("endocannabinoids") and their associated transporter mechanisms, as well as enzymes responsible for the synthesis and degradation of endocannabinoids and has emerged as a considerable target for pharmacotherapy approaches of numerous human diseases. As a widespread modulatory and lipid-signaling system, the ECS plays important roles in the CNS, development, synaptic plasticity, and the response to endogenous and environmental factors.

The modulation of the ECS can be affected by using selective or non-selective agonists, partial agonists, inverse agonists, and antagonists of the cannabinoid receptors,  $CB_1$  and  $CB_2$ . The  $CB_1$  receptor is distributed in brain areas associated with motor control, emotional responses, motivated behavior and energy homeostasis. In the periphery,  $CB_1$  is ubiquitously expressed in the adipose tissue, pancreas, liver, gastrointestinal tract, skeletal muscles, heart and the reproductive system. The  $CB_2$  receptor is mainly expressed in the immune system regulating its functions and is upregulated in response to tissue stress or damage in most cell types. The ECS is therefore involved in pathophysiological conditions in both the central and peripheral tissues.

The actions of endogenous ligands can be enhanced or attenuated by targeting mechanisms that are associated with their transport within the cellular and extra cellular matrix as well as their synthesis and breakdown. Small molecule chemical modulators of the ECS can be derived from plants ("phytocannabinoids"), can be semi-synthetic derivatives of phytocannabinoids or endocannabinoids, or can be completely synthetic new chemical entities. We plan to develop approaches within our portfolio that address receptor binding and endocannabinoid transport modulation using only synthetic new chemical entities. Future approaches may also involve targeting synthesis or breakdown enzymes.

ECS targeting cannabinoid-based medicines are already approved and used to treat numerous medical conditions. The ECS is further implicated in many disease states within the peer reviewed literature including conditions which involve the regulation of food intake, central nervous system, pain, cardiovascular, gastrointestinal, immune and inflammation, behavioral, antiproliferative and reproductive functions. These areas of ECS pathophysiology are aligned with our therapeutic areas of focus: anxiety, pain, inflammation, anorexia, and cancer.

# **Business Strategy**

Our objective is to develop and commercialize ethical pharmaceutical products that provide physicians access to the therapeutic potential lipid signaling of modulators, including modulating the ECS. We intend to pursue technologies and compounds that offer promising therapeutic approaches to known and validated signaling pathways, specifically lipid signaling and including compounds that promote the effectiveness of the ECS.

#### **Risk Factor Summary**

Investing in our securities involves a high degree of risk. You should carefully consider the risks described below, as well as other information included in our 2021 Transitional Report on Form 10-KT and our Quarterly Report on Form 10-Q, 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

- The sale or issuance of our shares of common stock to Lincoln Park may cause dilution, and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our shares of common stock to fall.
- We may not have access to the full amount available under the Purchase Agreement with Lincoln Park.
- Our management will have broad discretion over the use of the net proceeds from our sale of shares of common stock to Lincoln Park, you 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 United Kingdom ("UK") in connection with our clinical trials being conducted in the UK. If the UK government discontinues these tax credits, or we decide to conduct our clinical trials somewhere else, our costs to develop our product candidates would increase significantly.
- 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 Securities:

- · Our common stock may be delisted from The Nasdaq Capital Market if we cannot regain compliance with Nasdaq's continued listing requirements.
- If we sell securities in future financings stockholders may experience immediate dilution and, as a result, our stock price may decline.
- The price of our securities may be volatile, and you could lose all or part of your investment. Further, we do not know whether an active, liquid and orderly trading market will sustain for our securities or what the market price of our securities will be and as a result it may be difficult for you to sell your shares of our securities.
- · Shares of our common stock that have not been registered under federal securities laws are subject to resale restrictions imposed by Rule 144, including those set forth in Rule 144(I) which apply to a former "shell company."
- · Sales of our currently issued and outstanding stock may become freely tradable pursuant to Rule 144 and sales of such shares may have a depressive effect on the share price of our common stock.

# Corporate and other Information

We were incorporated in the State of Nevada on May 2, 2011. 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.

#### THE OFFERING

On May 13, 2022, we entered into a purchase agreement with Lincoln Park, which we refer to in this prospectus as the "Purchase Agreement," pursuant to which Lincoln Park has agreed to purchase from us up to an aggregate of \$20,000,000 of our common stock (subject to certain limitations) from time to time over a 36-month period. On May 13, 2022, we also entered into a registration rights agreement with Lincoln Park, which we refer to in this prospectus as the "Registration Rights Agreement," pursuant to which we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act, the shares of common stock that may be issued to Lincoln Park under the Purchase Agreement. Pursuant to the terms of the Purchase Agreement, at the same time we signed the Purchase Agreement and the Registration Rights Agreement, we issued 292,968 shares of common stock (the "Commitment Shares") to Lincoln Park as consideration for its commitment to purchase our shares of common stock under the Purchase Agreement. The 292,968 Commitment Shares are also covered by this prospectus.

We do not have the right to commence any sales of our common stock to Lincoln Park under the Purchase Agreement until certain conditions set forth in the Purchase Agreement have been satisfied, including that the SEC has declared effective the registration statement that includes this prospectus. Thereafter, from time to time, at our sole discretion, we may direct Lincoln Park to purchase our shares of common stock in amounts up to 200,000 shares on any single business day, which amounts may be increased up to 400,000 shares, depending on the market price of our common stock at the time of sale and subject to a maximum commitment by Lincoln Park of \$1,000,000 per single purchase, which we refer to in this prospectus as "Regular Purchases." In addition, at our discretion, Lincoln Park has committed to purchase other "accelerated amounts" and/or "additional accelerated amounts" under certain circumstances. We will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park in Regular Purchases under the Purchase Agreement will be based on the market price of our common stock preceding the time of sale as computed under the Purchase Agreement. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time, in our sole discretion, terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. There no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement, other than a prohibition on our entering into certain types of transactions that are defined in the Purchase Agreement as "Variable Rate Transactions." Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

Excluding the 292,968 Commitment Shares previously issued to Lincoln Park under the Purchase Agreement, as of May 13, 2022, there were 42,301,013 shares of our common stock outstanding, of which 41,936,170 shares were held by non-affiliates. If all of the 15,000,000 shares of common stock offered by Lincoln Park under this prospectus were issued and outstanding (without taking into account the 19.99% shareholder approval limitation or the \$20,000,000 total commitment available), such shares would represent approximately 35.5% of the total number of shares of common stock outstanding and approximately 35.8% of the total number of outstanding shares of common stock held by non-affiliates, in each case as of the date hereof. Although the Purchase Agreement provides that we may sell up to \$20,000,000 of our shares of common stock to Lincoln Park, 15,000,000 shares of common stock are being offered under this prospectus, which represents shares which have been or may be issued to Lincoln Park in the future under the Purchase Agreement assuming a price no less than \$0.32, if and when we sell shares to Lincoln Park under the Purchase Agreement. Depending on the market prices of our common stock at the time we elect to issue and sell shares to Lincoln Park under the Purchase Agreement, we may need to register for resale under the Securities Act additional shares of common stock in order to receive aggregate gross proceeds equal to the \$20,000,000 total commitment available to us under the Purchase Agreement. Conversely, depending on the market prices of our shares of common stock at the time of any sales to Lincoln Park under the Purchase Agreement, we may need to sell less than the number of shares of common stock being offered under this prospectus, given the \$20,000,000 total commitment available to us under the Purchase Agreement. If we elect to issue and sell more than the 15,000,000 shares offered under this prospectus to Lincoln Park, which we have the right, but not the obligation, to do so depending on the market prices of our shares of common stock subject to the \$20,000,000 total commitment available to us under the Purchase Agreement, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our shareholders. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the Purchase Agreement.

Under applicable rules of the Nasdaq Stock Market, in no event may we issue or sell to Lincoln Park under the Purchase Agreement more than 19.99% of our shares of common stock outstanding immediately prior to the execution of the Purchase Agreement (which is 8,455,972 shares of common stock, including the Commitment Shares, based on 42,301,013 shares outstanding immediately prior to the execution of the Purchase Agreement and prior to the issuance of the Commitment Shares), which limitation we refer to in this prospectus as the "Exchange Cap," unless (i) we obtain shareholder approval to issue shares of common stock in excess of the Exchange Cap or (ii) the average price of all applicable sales of our shares of common stock to Lincoln Park under the Purchase Agreement equals or exceeds \$0.32 per share (which represents the average closing price of our shares of common stock for the five trading days ending on May 13, 2022), such that issuances and sales of our shares of common stock to Lincoln Park under the Purchase Agreement would be exempt from the Exchange Cap limitation under applicable Nasdaq Stock Market rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any of our shares of common stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq Stock Market rules.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then issued and outstanding shares of common stock, as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Rule 13d-3 thereunder, which limitation we refer to in this prospectus as the "Beneficial Ownership Cap."

There are substantial risks to our shareholders as a result of the sale and issuance of shares of common stock to Lincoln Park under the Purchase Agreement. These risks include substantial dilution, significant declines in our stock price, and our inability to draw sufficient funds when needed. See "Risk Factors." Issuance of our shares of common stock to Lincoln Park under the Purchase Agreement will not affect the rights or privileges of our existing shareholders, except that the economic and voting interests of our existing shareholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing shareholders own will not decrease, the shares owned by our existing shareholders will represent a smaller percentage of our total outstanding shares after any such issuance to Lincoln Park.

#### **Securities Offered**

Shares of common stock to be offered by the selling 292,968 Commitment Shares issued to Lincoln Park upon execution of the Purchase Agreement. We will not receive any cash proceeds from the issuance of these Commitment

> Up to 14,707,032 shares that we may sell to Lincoln Park under the Purchase Agreement from time to time after the date of this prospectus (subject to the limitations under the Purchase Agreement, including the \$20,000,000 total commitment available thereunder).

Shares of common stock outstanding prior to this 42,301,013 shares of common stock.

offering

Shares of common stock to be outstanding after this 57,301,013 shares, assuming the sale of a total of 14,707,032 shares of common stock to Lincoln Park and the 292,968 Commitment Shares issued to Lincoln Park. The actual number of shares issued will vary depending upon the actual sales under this offering.

Use of proceeds

We will receive no proceeds from the sale of shares of common stock by Lincoln Park in this offering. We may receive up to \$20,000,000 aggregate gross proceeds under the Purchase Agreement from any sales we make to Lincoln Park pursuant to the Purchase Agreement after the date of this prospectus.

Any proceeds that we receive from sales to Lincoln Park under the Purchase Agreement will be used for working capital and general corporate purposes. See "Use of Proceeds."

Dividend policy

We have not paid any cash dividends on our shares of common stock to date and have no current plans to pay cash dividends on our shares of common stock. See "Market Information for Shares of common stock and Dividend Policy - Dividend Policy."

Risk factors

This investment involves a high degree of risk. See "Risk Factors" for a discussion of factors you should consider carefully before making an investment decision.

Market and Trading Symbol

Our shares of common stock are traded on The Nasdaq Capital Market under the symbol

"ARTL".

Unless otherwise noted, the number of our shares of common stock outstanding prior to and after this offering is based on 42,301,013 shares of common stock outstanding as of March 31, 2022, and excludes:

- 4,751,332 shares of our common stock issuable upon the exercise of options or restricted stock awards granted under our 2018 Equity Incentive Plan (the "2018 Plan"), with a weighted-average exercise price of \$1.65 per share;
- 4,433,412 shares of our common stock issuable upon the exercise of warrants, with a weighted-average exercise price of \$4.63 per share;
- 4,586,554 shares of our common stock reserved for future issuance under our 2018 Plan; and
- any additional shares that we may issue to Lincoln Park pursuant to the Purchase Agreement dated May 13, 2022, should we elect to sell such shares to Lincoln Park.

Unless otherwise noted, the information in this prospectus assumes:

no exercise of outstanding options or warrants subsequent to March 31, 2022.

# SUMMARY FINANCIAL DATA

The following tables summarize our financial data for the periods and as of the dates indicated. We have derived the statements of operations data for the three months ended March 31, 2022 and 2021, and the balance sheet data as of March 31, 2022 from our unaudited financial statements included elsewhere in this prospectus. We have derived the statements of operations data for the four-month transition period ended December 31, 2021 and 2020, and the balance sheet data as of December 31, 2021 from our audited financial statements included elsewhere in this prospectus. We have derived the statements of operations data for the years ended August 31, 2021 and 2020 and the balance sheet data as of August 31, 2021 and 2020, from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future and the results for the four-month transition period ended December 31, 2021 are not necessarily indicative of the results that may be expected for the full year or any other period. You should read this information together with our financial statements and related notes appearing elsewhere in this prospectus and the information in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Three months ended March 31,			Four months ended December 31,				Years ended August 31,				
		2022		2021	_	2021	2020		2020 2021		2020	
(In thousands)	(Unaudited)			(Unaudited)								
OPERATING EXPENSES												
General and administrative	\$	1.482	\$	1,389	\$	2,098	\$	1,067	\$	4,602	\$	2,767
Research and development	Ф	464	Φ	307	Ф	1,944	Ф	999	Ф	2,839	Ф	1,919
*	_		_	1.696	_				_		_	
Total Operating Expenses		1,946		1,090		4,042		2,066		7,441		4,686
Loss from Operations		(1,946)		(1,696)		(4,042)		(2,066)		(7,441)		(4,686)
OTHER INCOME (EVRENCE)												
OTHER INCOME (EXPENSE) Interest income		1				1		1		2		1
		-		- 1		1		1		2 2		1
Net change in fair value of marketable securities		(20)		1		O		-		2		20
Change in fair value of derivative liabilities	_	(10)	-			7	_		_	4	_	30
Total other income		(19)		1		/		1		4		31
Provision for income taxes	_	<u>-</u>				<u>-</u>	_			<u>-</u>		<u>-</u>
NET LOSS	\$	(1,965)	\$	(1,695)	\$	(4,035)	\$	(2,065)	\$	(7,437)	\$	(4,655)
THE BOOK	Ψ	(1,703)	Ψ	(1,055)	Ψ	(1,055)	Ψ	(2,005)	Ψ	(1,131)	Ψ	(1,055)
OTHER COMPREHENSIVE INCOME (LOSS)												
Net unrealized loss of available-for-sale securities		(22)		-		(5)		-		-		-
Foreign currency translation adjustments		(24)		2		(31)		(23)		(46)		74
Total Other Comprehensive Income (Loss)		(46)		2		(36)		(23)		(46)		74
TOTAL COMPREHENSIVE LOSS	\$	(2,011)	\$	(1,693)	\$	(4,071)	\$	(2,088)	\$	(7,483)	\$	(4,581)
	Φ.	(0.05)	•	(0.00)	Φ.	(0.10)	Ф	(0.10)	Ф	(0.40)	Φ.	(1.20)
Basic and Diluted Loss per Common Share	\$	(0.05)	\$	(0.09)	\$	(0.12)	\$	(0.18)	\$	(0.40)	\$	(1.26)
Basic and Diluted Weighted Average Common Shares Outstanding		42,301		19.688		33,454		11,462		18.675		3,708
Dasie and Diraced Weighted Average Common Shales Outstanding	_	72,301	_	17,000	_	22,727	_	11,402	_	10,073	_	3,700
		_										

		As of						
(In thousands)	March 31, 2022		De	cember 31, 2021	A	August 31, 2021	August 31, 2020	
Balance Sheet Data:	Un	audited						_
Cash and cash equivalents	\$	10,350	\$	12,162	\$	6,629	\$	2,142
Trading marketable securities		11,162		11,951		3,436		-
Available-for-sale securities		1,999		1,519		-		-
Working capital		23,714		23,582		9,791		1,836
Total assets		26,704		28,251		12,635		4,376
Total liabilities		924		1,084		593		501
Additional paid-in capital		48,705		48,081		28,902		13,272
Accumulated deficit		(22,903)		(20,938)		(16,903)		(9,466)
Accumulated other comprehensive income (loss)		(64)		(18)		18		64
Total stockholders' equity	\$	25,780	\$	27,167	\$	12,042	\$	3,875

#### RISK FACTORS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully 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 and in our Quarterly Report on Form 10-Q filed with the SEC on May 12, 2022, 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.

#### Risks Related to the Offering

The sale or issuance of our shares of common stock to Lincoln Park may cause dilution, and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our shares of common stock to fall.

On May 13, 2022, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$20,000,000 of our shares of common stock. Upon the execution of the Purchase Agreement, we issued 292,968 Commitment Shares to Lincoln Park as consideration for its commitment to purchase our shares of common stock under the Purchase Agreement. The remaining shares of our common stock that may be issued under the Purchase Agreement may be sold by us to Lincoln Park at our discretion from time to time over a 36-month period commencing after the satisfaction of certain conditions set forth in the Purchase Agreement, including that the SEC has declared effective the registration statement that includes this prospectus. The purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will fluctuate based on the price of our shares of common stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our shares of common stock to fall.

We generally have the right to control the timing and amount of any sales of our shares of common stock to Lincoln Park under the Purchase Agreement. Sales of our shares of common stock, if any, to Lincoln Park under the Purchase Agreement will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some, or none of the shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some, or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our shares of common stock. Additionally, the sale of a substantial number of our shares of common stock to Lincoln Park, 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.

# We may not have access to the full amount available under the Purchase Agreement with Lincoln Park.

Pursuant to the Purchase Agreement with Lincoln Park, Lincoln Park has committed to purchase up to \$20,000,000 of our shares of common stock from time to time over a 36-month period. The number of shares we may sell to Lincoln Park on any single business day in a Regular Purchase is 200,000, but that amount may be increased to up to 400,000 shares of our shares of common stock, depending on the market price of our shares of common stock at the time of sale and subject to a maximum limit of \$1,000,000 per Regular Purchase. Depending on the prevailing market price of our shares of common stock, we may not be able to sell shares to Lincoln Park for the maximum \$20,000,000 over the term of the Purchase Agreement, or we may need to sell to Lincoln Park under the Purchase Agreement more of our shares of common stock than are offered under this prospectus to receive aggregate gross proceeds equal to the \$20,000,000 total commitment of Lincoln Park under the Purchase Agreement. If we choose to do so, we must first register such additional shares for resale under the Securities Act. In addition, under the rules of the Nasdaq, in no event may we issue more than 19.99% of our shares outstanding under the Purchase Agreement unless we obtain shareholder approval or an exception pursuant to the rules of the Nasdaq is obtained to issue more than 19.99%. This limitation will not apply in certain limited circumstances as set out in the Purchase Agreement. We are not required or permitted to issue any shares of common stock under the Purchase Agreement if such issuance would breach our obligations under the rules or regulations of the Nasdaq. In addition, Lincoln Park will not be required to purchase any of our shares of common stock if such sale would result in Lincoln Park's beneficial ownership exceeding 9.99% of the then issued and outstanding shares of common stock. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a materia

The extent we rely on Lincoln Park as a source of funding will depend on a number of factors including, the prevailing market price of our shares of common stock and the extent to which we are able to secure working capital from other sources. If obtaining sufficient funding from Lincoln Park were to prove unavailable or prohibitively dilutive, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we were to receive all \$20,000,000 in gross proceeds under the Purchase Agreement with Lincoln Park, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

Our management will have broad discretion over the use of the net proceeds from our sale of shares of our common stock to Lincoln Park, you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from our sale of shares of common stock to Lincoln Park, and we could use them for purposes other than those contemplated at the time of commencement of this offering. Accordingly, you will be relying on the judgment of our management with regard to the use of those net proceeds, and you will not have the opportunity, as part of your 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 to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flows.

#### MARKET, INDUSTRY AND OTHER DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the market in which we operate, including our general expectations and market position, market opportunity, and market size, is based on information from various third-party industry and research sources, on assumptions that we have made based on that data and other similar sources, and on our knowledge of the markets for our services. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

In addition, industry publications, studies, and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section captioned "Risk Factors" and elsewhere in this prospectus. These and other factors could cause our actual results to differ materially from those expressed in the estimates made by the independent parties and by us.

# THE LINCOLN PARK TRANSACTION

#### General

On May 13, 2022, we entered into the Purchase Agreement and the Registration Rights Agreement with Lincoln Park. Pursuant to the terms of the Purchase Agreement, Lincoln Park has agreed to purchase from us up to \$20,000,000 of our shares of common stock (subject to certain limitations) from time to time over a 36-month period.

Pursuant to the terms of the Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act the shares that may be issued to Lincoln Park under the Purchase Agreement. Pursuant to the terms of the Purchase Agreement, we previously issued 292,968 Commitment Shares to Lincoln Park as consideration for its commitment to purchase our shares of common stock under the Purchase Agreement. The 292,968 Commitment Shares are also covered by this prospectus.

We do not have the right to commence any sales to Lincoln Park under the Purchase Agreement until certain conditions set forth in the Purchase Agreement have been satisfied, including the registration statement that includes this prospectus being declared effective by the SEC. Thereafter, from time to time, at our sole discretion, we may direct Lincoln Park to purchase our common stock in amounts up to 200,000 shares on any single business day in a Regular Purchase, which maximum amount may be increased up to 400,000 shares, depending on the market price of our shares of common stock at the time of sale and subject to a maximum commitment by Lincoln Park of \$1,000,000 per single Regular Purchase. In addition, at our discretion, Lincoln Park has committed to purchase other "accelerated amounts" and/or "additional accelerated amounts" under certain circumstances. The purchase price per share sold in Regular Purchases will be based on the market price of our shares of common stock immediately preceding the time of sale as computed under the Purchase Agreement. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

Excluding the 292,968 Commitment Shares previously issued to Lincoln Park under the Purchase Agreement, as of May 13, 2022, there were 42,301,013 shares of common stock outstanding, of which 41,936,170 shares were held by non-affiliates. If all of the 15,000,000 shares of common stock offered by Lincoln Park under this prospectus were issued and outstanding (without taking into account the 19.99% shareholder approval limitation or the \$20,000,000 total commitment available), such shares would represent approximately 35.5% of the total number of shares of common stock outstanding and approximately 35.8% of the total number of outstanding shares of common stock held by non-affiliates, in each case as of the date hereof. Depending on the market prices of our shares of common stock at the time we elect to issue and sell shares to Lincoln Park under the Purchase Agreement, we may need to sell more shares to Lincoln Park than are offered under this prospectus to receive aggregate gross proceeds equal to the \$20,000,000 total commitment of Lincoln Park under the Purchase Agreement, in which case we must first register for resale under the Securities Act additional shares of common stock, which could cause additional substantial dilution to our shareholders. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the Purchase Agreement.

Under applicable rules of The Nasdaq Stock Market, in no event may we issue or sell to Lincoln Park under the Purchase Agreement our shares of common stock in excess of the Exchange Cap (which is 8,455,972 shares, including the Commitment Shares, or 19.99% of the 42,301,013 shares of common stock outstanding immediately prior to the execution of the Purchase Agreement and the issuance of the Commitment Shares), unless (i) we obtain shareholder approval to issue shares of common stock in excess of the Exchange Cap or (ii) the average price of all applicable sales of our shares of common stock to Lincoln Park under the Purchase Agreement equals or exceeds \$0.32 (which represents the average closing price of our shares of common stock for the five trading days ending on May 13, 2022,), such that issuances and sales of our shares of common stock to Lincoln Park under the Purchase Agreement would be exempt from the Exchange Cap limitation under applicable Nasdaq Stock Market rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any of our shares of common stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq Stock Market rules.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then issued and outstanding shares of common stock of Artelo Biosciences, as calculated pursuant to Section 13(d) of the Exchange Act, and Rule 13d-3 thereunder, which limitation we refer to in this prospectus as the "Beneficial Ownership Cap."

# Purchase of Shares Under the Purchase Agreement

Under the Purchase Agreement, we may from time to time, at our discretion, direct Lincoln Park to purchase on any single business day up to 200,000 shares of common stock in a Regular Purchase, provided, however, that (i) the Regular Purchase may be increased up to 300,000 shares, provided that the closing sale price of the shares of common stock is not below \$0.50 on the purchase date (subject to adjustment for any reorganization, recapitalization, non cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement), and (ii) the Regular Purchase may be increased up to 400,000 shares, provided that the closing sale price of the shares of common stock is not below \$0.75 on the purchase date (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement).

In each case, Lincoln Park's maximum commitment in any single Regular Purchase may not exceed \$1,000,000. The purchase price per share for each such Regular Purchase will be based on prevailing market prices of our shares of common stock immediately preceding the time of sale as computed under the Purchase Agreement. In addition to Regular Purchases, we may also direct Lincoln Park to purchase other amounts as accelerated purchases or as additional accelerated purchases if the closing sale price of the shares of common stock exceeds certain threshold prices as set forth in the Purchase Agreement

The purchase price per share for each such Regular Purchase will be equal to 97% of the lower of:

- the lowest sale price for our shares of common stock on the purchase date of such shares; or
- the arithmetic average of the three lowest closing sale prices for our shares of common stock during the 10 consecutive business days ending on the business day immediately preceding the purchase date of such shares.

In addition to Regular Purchases described above, we may also direct Lincoln Park, on the business day that we have properly submitted a Regular Purchase notice directing Lincoln Park to purchase the maximum number of our shares of common stock that we are then permitted to include in a single Regular Purchase notice, to purchase an additional amount of our shares of common stock, which we refer to in this prospectus as an "Accelerated Purchase," not to exceed the lesser of:

- · 300% of the applicable Regular Purchase Share Limit for the corresponding Regular Purchase; and
- · 30% of the total volume of shares of common stock traded on The Nasdaq Stock Market Accelerated Purchase Date.

The purchase price per share for each such Accelerated Purchase will be equal to the lower of 95% of:

- the volume weighted average price of our shares of common stock for the period beginning at the Accelerated Purchase Commencement Time and ending at the Accelerated Purchase Termination Time; and
- the closing sale price of our shares of common stock on the applicable Accelerated Purchase date.

In addition to Accelerated Purchases described above, we may also direct Lincoln Park, on the business day that we have properly submitted an Accelerated Purchase notice directing Lincoln Park to purchase the maximum number of our shares of common stock that we are then permitted to include in a single Accelerated Purchase notice, to purchase an additional amount of our shares of common stock, which we refer to in this prospectus as an "Additional Accelerated Purchase," not to exceed the lesser of:

- · 300% of the number of purchase shares directed by us to be purchased by Lincoln Park pursuant to the corresponding Regular Purchase Notice for the corresponding Regular Purchase (subject to the purchase share limitations contained in the Purchase Agreement); and
- · 30% of the total volume of shares of common stock traded on The Nasdaq Stock Market Accelerated Purchase Date.

We may, in our sole discretion, submit multiple Additional Accelerated Purchase notices to Lincoln Park prior to 5:00 p.m., Eastern time, on a single Accelerated Purchase date, provided that all prior Accelerated Purchases and Additional Accelerated Purchases (including those that have occurred earlier on the same day) have been completed and all of the shares to be purchased thereunder (and under the corresponding Regular Purchase) have been properly delivered to Lincoln Park in accordance with the Purchase Agreement.

The purchase price per share for each such Additional Accelerated Purchase will be equal to the lower of 95% of:

- the volume weighted average price of our shares of common stock for the period beginning at the Additional Accelerated Purchase Commencement Time and ending at the Additional Accelerated Purchase Termination Time; and
- the closing sale price of our shares of common stock on the applicable Additional Accelerated Purchase date.

In the case of Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split, or other similar transaction occurring during the business days used to compute the purchase price.

Other than as described above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our shares of common stock to Lincoln Park.

#### **Events of Default**

Events of default under the Purchase Agreement include the following:

- the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order or similar order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our shares of common stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period, but excluding a lapse or unavailability where (i) the Company terminates the Registration Statement after Lincoln Park has confirmed in writing that all of the shares covered thereby have been resold or (ii) the Company supersedes the Registration Statement with a New Registration Statement, including (without limitation) when the Registration Statement is effectively replaced with a New Registration Statement covering shares (provided in the case of this clause (ii) that all of the shares covered by the superseded (or terminated) registration statement that have not theretofore been sold to the Lincoln Park are included in the superseding (or new) registration statement);
- · suspension by our principal market of our shares of common stock from trading for a period of one business day;
- the de-listing of our shares of common stock from The Nasdaq Stock Market, our principal market, provided our shares of common stock are not immediately thereafter trading on the NYSE, the NYSE American, the OTC Bulletin Board, or the OTCQB or the OTCQX operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing);

- · if at any time the Exchange Cap is reached unless and until shareholder approval is obtained, to the extent applicable;
- the failure of our transfer agent to issue to Lincoln Park shares of common stock within two business days after the applicable date on which Lincoln Park is entitled to receive such shares;
- any breach of the representations, warranties, or covenants contained in the Purchase Agreement or Registration Rights Agreement that has or would reasonably be expected to have a material adverse effect on us and, in the case of a breach of a covenant that is reasonably curable, that is not cured within five business days;
- any voluntary or involuntary participation or threatened participation in bankruptcy proceedings by or against us; or
- · if at any time we are not eligible to transfer our shares of common stock electronically as DWAC shares.

Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the events of default set forth above, although the Purchase Agreement would automatically terminate in the event of any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us. During an event of default, all of which are outside of Lincoln Park's control, we may not direct Lincoln Park to purchase any of our shares of common stock under the Purchase Agreement.

# **Our Termination Rights**

We have the unconditional right, at any time, for any reason (or for no reason) and without any payment or liability to us, to give notice to Lincoln Park to terminate the Purchase Agreement.

#### No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the Purchase Agreement.

#### **Prohibitions on Variable Rate Transactions**

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement other than a prohibition on entering into a "Variable Rate Transaction," as defined in the Purchase Agreement.

#### Effect of Performance of the Purchase Agreement on Our Shareholders

All shares registered in this offering that have been or may be issued or sold by us to Lincoln Park under the 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 36-months commencing on the date that the conditions set forth in the Purchase Agreement have been satisfied, including that the registration statement, including this prospectus, becomes effective. The sale by Lincoln Park of a significant amount of shares registered in this offering at any given time could cause the market price of our shares of common stock to decline and to be highly volatile. Sales of our shares of common stock to Lincoln Park, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some, or none of the additional shares of common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some, or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our shares of common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park 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. However, we have the right to control the timing and amount of any additional sales of our shares to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any cost to us. Pursuant to the terms of the Purchase Agreement, we have the right, but not the obligation, to direct Lincoln Park to purchase up to \$20,000,000 of our shares of common stock (exclusive of the 292,968 Commitment Shares issued to Lincoln Park on the date of the Purchase Agreement). Depending on the price per share at which we sell our shares of common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more of our shares of common stock than are offered under this prospectus in order to receive aggregate gross proceeds equal to the \$20,000,000 total commitment available to us under the Purchase Agreement. If we choose to do so, we must first register for resale under the Securities Act such additional shares of common stock, which could cause additional substantial dilution to our shareholders. Conversely, depending on the market prices of our shares of common stock at the time of any sales to Lincoln Park under the Purchase Agreement, we may need to sell less than the number of shares of common stock being offered under this prospectus, given the \$20,000,000 total commitment available to us under the Purchase Agreement. The number of shares ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares we direct Lincoln Park to purchase under the Purchase Agreement.

The Purchase Agreement prohibits us from issuing or selling to Lincoln Park under the Purchase Agreement (i) shares of common stock in excess of the Exchange Cap, unless and until we obtain shareholder approval to issue shares in excess of the Exchange Cap or the average price of all applicable sales of our shares of common stock to Lincoln Park under the Purchase Agreement equals or exceeds \$0.32 (which represents the average closing price of our shares of common stock for the five trading days ending on May 13, 2022, such that the transactions contemplated by the Purchase Agreement are exempt from the Exchange Cap limitation under applicable The Nasdaq Stock Market rules, and (ii) any shares of common stock if those shares, when aggregated with all other shares of common stock then beneficially owned by Lincoln Park and its affiliates, would exceed the Beneficial Ownership Cap.

The following table sets forth the amount of gross proceeds we may receive from Lincoln Park from our sale of shares to Lincoln Park under the Purchase Agreement at varying assumed average purchase prices after the date of this prospectus:

Assumed Average Purchase Price Per Share	Maximum Number of Shares Issuable Under the Purchase Agreement(1)	Number of Registered Shares to be Issued if Full Purchase (1)(2)	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park (3)	from the Sale of Shares to Lincoln Park Under the Purchase Agreement
\$0.25	14,707,032	15,000,000	26.2%	\$3,676,758
\$0.32(4)	14,707,032	15,000,000	26.2%	\$4,706,250
\$0.60	14,707,032	15,000,000	26.2%	\$8,824,219
\$1.00	14,707,032	15,000,000	26.2%	\$14,707,032
\$1.50	13,333,333	13,626,301	24.4%	\$20,000,000
	, ,	- , ,		. , ,

- (1) Based on the \$20,000,000 total commitment available under the Purchase Agreement and the corresponding assumed average purchase price per share in the first column. The registration statement of which this prospectus forms a part registers 14,707,032 shares of common stock for resale by Lincoln Park after we sell such shares to them, excluding the 292,968 Commitment Shares that are also included in this registration statement for resale by Lincoln Park. However, as we may not sell shares of common stock in excess of the \$20,000,000 total commitment available to us under the Purchase Agreement, the actual number of shares we may sell may be more or less than the number of shares covered by this prospectus, depending on the price per share at which we sell our shares of common stock to Lincoln Park pursuant to the Purchase Agreement.
- (2) Represents: (i) 292,968 Commitment Shares that we already issued to Lincoln Park as commitment fee for making the commitment under the Purchase Agreement; and (ii) the maximum number of shares set forth in the second column which represents the maximum number of shares which may be issued and sold to Lincoln Park in the future under the Purchase Agreement at the corresponding average purchase price per share set forth in the first column, if and when we sell shares to Lincoln Park under the Purchase Agreement, and which may or may not cover all the shares we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share. See footnote 1. If we seek to issue shares of common stock at an average price less than \$0.32, including shares from other transactions that may be aggregated with the transactions contemplated by the Purchase Agreement under the applicable rules of The Nasdaq Stock Market, in excess of 8,455,972 shares, including the Commitment Shares, or 19.99% of the total shares of common stock outstanding immediately prior to the execution of the Purchase Agreement, we may be required to seek shareholder approval in order to be in compliance with the rules of The Nasdaq Stock Market.
- (3) The denominator is based on 42,301,013 shares outstanding as of May 13, 2022, adjusted to include (i) the 292,968 Commitment Shares issued to Lincoln Park upon execution of the Purchase Agreement and (ii) the number of shares set forth in the second column, which represents the maximum number of shares which may be issued and sold to Lincoln Park in the future under the Purchase Agreement at the corresponding average purchase price per share set forth in the first column. The numerator is based on the 292,968 Commitment Shares issued to Lincoln Park upon execution of the Purchase Agreement plus the maximum number of shares set forth in the second column which may be issued to Lincoln Park under the Purchase Agreement at the corresponding assumed purchase price set forth in the first column. See footnote 1.
- (4) The closing sale price of our shares of common stock on May 12, 2022, which represents the average closing price of our shares of common stock for the five trading days ending on May 13, 2022

#### USE OF PROCEEDS

This prospectus relates to shares of common stock that may be offered and sold from time to time by Lincoln Park. We will receive no proceeds from the sale of shares of common stock by Lincoln Park in this offering. We may receive up to \$20,000,000 aggregate gross proceeds under the Purchase Agreement from any sales we make to Lincoln Park pursuant to the Purchase Agreement. We estimate that the net proceeds to us from the sale of our shares of common stock to Lincoln Park pursuant to the Purchase Agreement will be up to \$19,800,000 over an approximately 36-month period, assuming that we sell the full amount of our shares of common stock that we have the right, but not the obligation, to sell to Lincoln Park under the Purchase Agreement, and after estimated fees and expenses. See "Plan of Distribution" elsewhere in this prospectus for more information.

We expect to use any proceeds that we receive under the Purchase Agreement for working capital and general corporate purposes. It is possible that no shares will be issued under the Purchase Agreement. We may also use a portion of the net proceeds to acquire or invest in complementary businesses, technologies, product candidates or other intellectual property, although we have no present commitments or agreements to do so.

The amounts and timing of these expenditures will depend on a number of factors, including cash flows from our operations and the anticipated growth of our business. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for any net proceeds we receive or the adequacy of such proceeds to support our intended activities. Accordingly, we will retain broad discretion over the use of these proceeds. Pending use of the net proceeds as described above, we expect to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

#### 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 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 may deem relevant.

#### DILUTION

The sale of our shares of common stock to Lincoln Park pursuant to the Purchase Agreement will have a dilutive impact on our shareholders. In addition, the lower our stock price is at the time we exercise our right to sell shares to Lincoln Park, the more shares of common stock we will have to issue to Lincoln Park pursuant to the Purchase Agreement and our existing shareholders would experience greater dilution.

Our net tangible book value as of March 31, 2022 was \$24 million, or \$0.56 per share, based on 42,301,013 shares of common stock outstanding as of that date. After giving effect to the assumed sale of 15,000,000 shares of common stock to Lincoln Park pursuant to the Purchase Agreement at an assumed sale price of \$0.32 per share of our shares of common stock (which represents the average closing price of our shares of common stock for the five trading days ending on May 13, 2022), and after the issuance of 292,968 shares of common stock to Lincoln Park as Commitment Shares and after deducting estimated offering expenses payable by us, our as-adjusted net tangible book value as of March 31, 2022 would have been approximately \$28 million, or \$0.49 per share. This represents an immediate decrease in net tangible book value of \$0.07 per share to existing shareholders and an immediate increase in net tangible book value of \$0.17 per share to investors in this offering.

The number of shares of our common stock to be outstanding immediately after this offering is based on 42,301,013 shares outstanding as of March 31, 2022 and excludes:

- 4,751,332 shares of our common stock issuable upon the exercise of options or restricted stock awards granted under our 2018 Equity Incentive Plan (the "2018 Plan"), with a weighted-average exercise price of \$1.65 per share;
- · 4,433,412 shares of our common stock issuable upon the exercise of warrants, with a weighted-average exercise price of \$4.63 per share;
- · 4,586,554 shares of our common stock reserved for future issuance under our 2018 Plan; and
- any additional shares that we may issue to Lincoln Park pursuant to the Purchase Agreement dated May 13, 2022, should we elect to sell such shares to Lincoln Park.

To the extent that additional shares are issued pursuant to the foregoing, investors purchasing our shares of common stock in this offering will experience further dilution. In addition, we may offer other securities in other offerings due to market conditions or strategic considerations. To the extent we issue such securities, investors may experience further dilution.

#### SELLING STOCKHOLDER

This prospectus relates to the possible resale by the selling stockholder, Lincoln Park, of shares of common stock that may be issued to Lincoln Park pursuant to the Purchase Agreement. We are filing the registration statement of which this prospectus forms a part pursuant to the provisions of the Registration Rights Agreement, which we entered into with Lincoln Park on May 13, 2022, concurrently with our execution of the Purchase Agreement, in which we agreed to provide certain registration rights with respect to sales by Lincoln Park of the shares of common stock that may be issued to Lincoln Park under the Purchase Agreement.

Lincoln Park, as the selling stockholder, may, from time to time, offer and sell pursuant to this prospectus any or all of the shares that we may sell to Lincoln Park under the Purchase Agreement. The selling stockholder may sell some, all, or none of its shares. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements, or understandings with the selling shareholder regarding the sale of any of the shares.

The following table presents information regarding the selling stockholder and the shares of common stock that it may offer and sell from time to time under this prospectus. The table is prepared based on information supplied to us by the selling stockholder, and reflects its holdings as of May 13, 2022. Neither Lincoln Park nor any of its affiliates has held a position or office, or had any other material relationship, with us or any of our predecessors or affiliates. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and Rule 13d-3 thereunder.

Shares to be Sold in this

			Shares to be Sold in this	
			Offering Assuming the	
	Shares	Percentage of	Company issues the	Percentage of
	Beneficially	Outstanding Shares	Maximum Number of	Outstanding Shares
	Owned Before	Beneficially Owned	Shares Under the	Beneficially Owned
Selling Shareholder	this Offering	Before this Offering	Purchase Agreement	After this Offering
Lincoln Park Capital Fund, LLC (1)	292,968(2)	* (3)	15,000,000 (4)	0 %

- \* Represents less than 1% of the outstanding shares and/or assumes all shares of common stock registered hereunder have been resold by Lincoln Park.
- (1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under the prospectus in connection with the transactions contemplated under the Purchase Agreement. Lincoln Park Capital, LLC is not a licensed broker dealer or an affiliate of a licensed broker dealer.
- (2) Represents 292,968 Commitment Shares issued to Lincoln Park upon our execution of the Purchase Agreement as a fee for its commitment to purchase shares of common stock under the Purchase Agreement, all of which are covered by the registration statement that includes this prospectus. We have excluded from the number of shares beneficially owned by Lincoln Park prior to the offering all of the shares of common stock that Lincoln Park may be required to purchase on or after the date of this prospectus pursuant to the Purchase Agreement, because the issuance of such shares is solely at our discretion and is subject to certain conditions, the satisfaction of all of which are outside of Lincoln Park's control, including the registration statement of which this prospectus is a part becoming and remaining effective. Furthermore, under the terms of the Purchase Agreement, issuances and sales of shares of common stock to Lincoln Park are subject to certain limitations on the amounts we may sell to Lincoln Park at any time, including the Exchange Cap and the Beneficial Ownership Cap. See the description under the heading "The Lincoln Park Transaction" for more information about the Purchase Agreement.
- (3) Based on 42,301,013 outstanding shares of common stock as of May 13, 2022, adjusted to include the 292,968 Commitment Shares we have already issued to Lincoln Park pursuant to the Purchase Agreement.
- (4) Represents: (i) 292,968 Commitment Shares issued to Lincoln Park upon our execution of the Purchase Agreement as a fee for its commitment to purchase shares of common stock under the Purchase Agreement; and (ii) an aggregate of 14,707,032 shares that may be sold by us to Lincoln Park at our discretion from time to time over a 36-month period commencing after the satisfaction of certain conditions set forth in the Purchase Agreement, including that the SEC has declared effective the registration statement that includes this prospectus. Depending on the price per share at which we sell our shares of common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more or less shares of common stock than are offered under this prospectus in order to receive aggregate gross proceeds equal to the \$20,000,000 total commitment available to us under the Purchase Agreement. If we choose to sell more shares than are offered under this prospectus, we must first register for resale under the Securities Act such additional shares. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the Purchase Agreement

# MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled "Management's Discussion and Analysis of Financial Condition or Plan of Operation" contained in any supplements to this prospectus and in our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021 and in our Quarterly Report on Form 10-Q, 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.

#### BUSINESS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled "Business" contained in any supplements to this prospectus and in our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021, 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.

# **Description of Property**

Our principal executive office is currently located at 505 Lomas Santa Fe, Suite 160, Solana Beach, California 92075, USA. Our United Kingdom subsidiary, Artelo Biosciences Limited maintains an office at the biohub located at Mereside, Alderly Park, Alderly Edge, Cheshire, SK10 4TG, UK. We do not currently own any properties, laboratories, or manufacturing facilities. The leases for the subsidiaries' office spaces are month-to-month.

# **Legal Proceedings**

From time to time, we may be involved in various claims and legal proceedings relating to claims arising out of our operations. We are not currently a party to any legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business, financial condition, and results of operations. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

#### MANAGEMENT

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled "Directors, Executive Officers and Corporate Governance" contained in any supplements to this prospectus and in our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021, 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.

# EXECUTIVE COMPENSATION

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled "Executive Compensation" contained in any supplements to this prospectus and in our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021, 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.

#### CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Except as disclosed herein, no director, executive officer, shareholder holding at least 5% of shares of our common stock, or any family member thereof, had any material interest, direct or indirect, in any transaction, or proposed transaction since the year ended December 31, 2019, in which the amount involved in the transaction exceeded or exceeds the lesser of \$120,000 or one percent of the average of our total assets at the year-end for the last three completed fiscal years:

None.

# Certain Family Relationships

There are no family relationships among any of our directors or executive officers.

#### Policies and Procedures for Transactions with Related Persons

Our audit committee has the primary responsibility for reviewing and approving or disapproving "related party transactions," which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed \$120,000 and in which a related person has or will have a direct or indirect material interest. The charter of our audit committee provides that our audit committee shall review and approve or disapprove in advance any related party transaction.

#### Sales of Unregistered Securities

## Lincoln Park Transaction

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 of 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 292,968 Commitment Shares 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.

#### **Indemnification of Officers and Directors**

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers, in addition to the indemnification provided for in our amended and restated articles of incorporation and bylaws. The indemnification agreements and our amended restated articles of incorporation and bylaws require us to indemnify our directors, executive officers and certain controlling persons to the fullest extent permitted by Nevada law.

#### SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of May 13, 2022, as adjusted to reflect the sale of common stock offered by the selling stockholder in this offering, for:

- each person, or group of affiliated persons, who we know to beneficially own more than five percent (5%) of our common stock;
- · each of our named executive officers;
- · each of our directors and director nominees; and
- · all of our executive officers and directors as a group.

The percentage of beneficial ownership information shown in the table prior to this offering is based on 42,301,013 shares of common stock outstanding as of May 13, 2022, and assumes no participation in this offering by the parties below. The percentage of beneficial ownership shown in the table after this offering is based upon 57,301,013 shares of common stock outstanding after the close of this offering, assuming the sale of 15,000,000 shares of common stock by the selling stockholder in the offering.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of more than five percent (5%) of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of our common stock issuable pursuant to the exercise of stock options that are either immediately exercisable or exercisable within sixty (60) days of May 13, 2022, and restricted stock awards that are scheduled to vest within sixty (60) days of May 13, 2022. These shares are deemed to be outstanding and beneficially owned by the person holding those options and restricted stock units for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. 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.

The following table sets forth, as of May 13, 2022, certain information with respect to the beneficial ownership of our common shares by each shareholder known by us to be the beneficial owner of more than 5% of our common shares, as well as by each of our current directors and executive officers as a group. Each person has sole voting and investment power with respect to the shares of common stock, except as otherwise indicated. Beneficial ownership consists of a direct interest in the shares of common stock, except as otherwise indicated.

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 Sante Fe, Suite 160, Solana Beach, California 92075. Beneficial ownership representing less than 1% is denoted with an asterisk (\*).

Name and Address of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors and Named Executive Officers		
Gregory D. Gorgas <sup>(1)</sup>	952,877	2.25%
Connie Matsui <sup>(2)</sup>	162,917	*
Steven Kelly <sup>(3)</sup>	107,000	*
Douglas Blayney, M.D. (4)	100,250	*
R. Martin Emanuele, Ph.D. <sup>(5)</sup>	102,750	*
Gregory R. Reyes M.D., Ph.D. (6)	47,500	*
Tamara A. Seymour	10,000	*
All Current Directors and Executive Officers as a Group	1,483,294	3.51%

# 5% Stockholders

None

- Less than 1%
- (1) Consists of 270,676 shares held by Gregory Gorgas, option to purchase 662,091 shares of common stock and warrants to purchase 20,110 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (2) Consists of 56,667 shares held by Connie Matsui and option to purchase 106,250 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (3) Consists of 12,500 shares held by Steven Kelly and option to purchase 94,500 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (4) Consists of 12,500 shares held by Douglas Blayney and option to purchase 87,750 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (5) Consists of 12,500 shares held by R. Marty Emanuele and option to purchase 90,250 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (6) Consists of option to purchase 47,500 shares of common stock that are exercisable within 60 days of May 13, 2022.
- (7) Consists of option to purchase 10,000 shares of common stock that are exercisable within 60 days of May 13, 2022.

# **Changes in Control**

See "Anti-Takeover Effects of Nevada Law and our Articles of Incorporation and Bylaws" section below.

#### PLAN OF DISTRIBUTION

The shares of common stock offered by this prospectus are being offered by the selling stockholder, Lincoln Park. The shares of common stock 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 shares of common stock offered by this prospectus could be effected in one or more of the following methods:

- · common stock brokers' transactions;
- · transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents
- "at the market" into an existing market for the shares of common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- · in privately negotiated transactions; or
- any combination of the foregoing.

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. Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of the shares of common stock that it may purchase from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters, or agents participating in the distribution of the shares may receive compensation in the form of commissions, discounts, or concessions from the selling shareholder and/or purchasers for whom the broker-dealers may act as agent. The compensation paid to any such particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive.

We know of no existing arrangements between Lincoln Park or any other shareholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus.

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 shareholder, including the names of any brokers, dealers, underwriters or agents participating in the distribution of such shares by the selling shareholder, any compensation paid by Lincoln Park to any such brokers, dealers, underwriters or agents, and any other required information.

We will pay the expenses incident to the registration, offering, and sale of the shares to Lincoln Park. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares 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. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Lincoln Park has represented to us that at no time prior to the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our shares of common stock or any hedging transaction, which establishes a net short position with respect to our shares of common stock. Lincoln Park has agreed that during the term of the Purchase Agreement, it and its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling shareholder, 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 earlier of (i) termination of the Purchase Agreement or (ii) the date that all shares offered by this prospectus have been sold by Lincoln Park. The term "selling shareholder" includes donees, pledgees, transferees, or other successors in interest, including those who receive any of the shares as a gift, pledge, distribution, redemption, repurchase, cancellation, or other non-sale related transfer from a selling shareholder (including after the date of this prospectus).

#### **DESCRIPTION OF SECURITIES**

This section summarizes our authorized and outstanding securities and certain of the provisions of our articles of incorporation and our bylaws, as amended.

# General

The Company's authorized capital stock consists of 756,250,000 shares of capital stock, par value \$0.001 per share, of which 750,000,000 shares are common stock, par value \$0.001 per share and 6,250,000 of preferred stock, par value \$0.001 per share. As of May 13, 2022, the Company has 42,301,013 shares of common stock outstanding held by approximately one hundred sixty-five (165) stockholders of record, and no shares of preferred stock outstanding.

#### **Common Stock**

The holders of our common stock (i) have equal ratable rights to dividends from funds legally available, therefore, when, as and if declared by our Board; (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 on which stockholders may vote. Reference is made to the Company's Articles of Incorporation, Bylaws and the applicable statutes of the State of Nevada for a more complete description of the rights and liabilities of holders of the Company's securities.

# **Preferred Stock**

The Company has authorized 6,250,000 shares of preferred stock. There is no preferred stock outstanding. Our Board may designate the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, redemption rights, liquidation preference, sinking fund terms and the number of shares constituting any series or the designation of any series. The issuance of preferred stock could have the effect of restricting dividends on the common stock, diluting the voting power of the common stock, impairing the liquidation rights of the common stock or delaying, deterring or preventing a change in control. Such issuance could have the effect of decreasing the market price of the common stock. We currently have no plans to issue any shares of preferred stock.

#### Non-cumulative Voting

Holders of shares of our common stock do not have cumulative voting rights; meaning that the holders of 50.1% of the outstanding shares, voting for the election of directors, can elect all of the directors to be elected, and, in such event, the holders of the remaining shares will not be able to elect any of our directors.

#### Registration Rights

In connection with our Series A Subscription Agreement entered into on July 31, 2017, we entered into a Registration Rights Agreement, pursuant to which we have agreed that within one hundred eighty (180) calendar days from the final closing of the July 2017 offering of common stock (the "Series A Offering"), the Company will file a registration statement with the SEC, or the Registration Statement, covering (a) the shares of common stock issued in the Series A Offering, (b) the shares of common stock issued in the Series A Stock Purchase Warrants, (c) any shares of common stock then issued or issuable as partial liquidated damage pursuant to the agreement and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar even with respect to the foregoing, collectively, the Series A Registrable Shares. If the Company is late in filing the Registration Statement, if the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission within fifteen (15) trading days after receipt of comments by or notice from the Commission that such amendment is required for such Registration Statement to be declared effective by the Effectiveness Date, or if the Registration Statement is not declared effective within one hundred twenty (120) days after the filing date of the Registration Statement, the Company will issue to each Holder an amount in shares of the Company's common stock, as partial liquidated damages equal to two percent (2%) per month multiplied by the number of shares purchased by the Holder in the Offering (not including Warrant shares); provided, however, that in no event will the penalties exceed twelve percent (12%) of the aggregate shares purchased by the holder. The Company must keep the Registration Statement effective until (i) the Series A Registrable Shares have been sold in accordance with Rule 144.

In connection with our Series B Subscription Agreement entered into on March 23, 2018, we entered into a Registration Rights Agreement, pursuant to which we have agreed that within one hundred eighty (180) calendar days from the final closing of the March 2018 offering of common stock (the "Series B Offering"), the Company will file a registration statement with the SEC, or the Registration Statement, covering (a) the shares of common stock issued in the Series B Offering, (b) the shares of common stock issued in the Series B Offering, (b) the shares of common stock issued in the Series B Stock Purchase Warrants, (c) any shares of common stock then issued or issuable as partial liquidated damage pursuant to the agreement and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar even with respect to the foregoing, collectively, the Series B Registrable Shares. If the Company is late in filing the Registration Statement, if the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission within fifteen (15) trading days after receipt of comments by or notice from the Commission that such amendment is required for such Registration Statement to be declared effective by the Effectiveness Date, or if the Registration Statement is not declared effective within one hundred twenty (120) days after the filing date of the Registration Statement, the Company will issue to each Holder an amount in shares of the Company's common stock, as partial liquidated damages equal to two percent (2%) per month multiplied by the number of shares purchased by the Holder in the Offering (not including Warrant shares); provided, however, that in no event will the penalties exceed twelve percent (12%) of the aggregate shares purchased by the holder. The Company must keep the Registration Statement effective until (i) the Series B Registrable Shares have been sold in accordance with such effective Registration State

In connection with our Series C Subscription Agreement entered into on September 12, 2018, we entered into a Registration Rights Agreement, pursuant to which we have agreed that within one hundred eighty (180) calendar days from the final closing of the September 2018 offering of common stock (the "Series C Offering"), the Company will file a registration statement with the SEC, or the Registration Statement, covering (a) the shares of common stock issued in the Series C Offering, (b) the shares of common stock issued upon exercise of the Series C Stock Purchase Warrants, (c) any shares of common stock then issued or issuable as partial liquidated damage pursuant to the agreement and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar even with respect to the foregoing, collectively, the Series C Registrable Shares. If the Company is late in filing the Registration Statement, if the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission within fifteen (15) trading days after receipt of comments by or notice from the Commission that such amendment is required for such Registration Statement to be declared effective by the Effectiveness Date, or if the Registration Statement is not declared effective within one hundred twenty (120) days after the filing date of the Registration Statement, the Company will issue to each Holder an amount in shares of the Company's common stock, as partial liquidated damages equal to two percent (2%) per month multiplied by the number of shares purchased by the Holder in the Offering (not including Warrant shares); provided, however, that in no event will the penalties exceed twelve (12%) of the aggregate shares purchased by the holder. The Company must keep the Registration Statement effective until (i) the Series C Registrable Shares have been sold in accordance with Rule 144.

In connection with our Series D Subscription Agreement entered into on January 30, 2019, we entered into a Registration Rights Agreement, pursuant to which we have agreed that within one hundred eighty (180) calendar days from the final closing of the January 30, 2019 offering of common stock (the "Series D Offering"), the Company will file a registration statement with the SEC, or the Registration Statement, covering (a) the shares of common stock issued in the Series D Offering, (b) the shares of common stock issued be series D Stock Purchase Warrants, (c) any shares of common stock then issued or issuable as partial liquidated damage pursuant to the agreement and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar even with respect to the foregoing, collectively, the Series D Registrable shares. If the Company is late in filing the Registration Statement, if the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission within fifteen (15) trading days after receipt of comments by or notice from the Commission that such amendment is required for such Registration Statement to be declared effective by the Effectiveness Date, or if the Registration Statement is not declared effective within one hundred twenty (120) days after the filing date of the Registration Statement, the Company will issue to each Holder an amount in shares of the Company's common stock, as partial liquidated damages equal to two percent (2%) per month multiplied by the number of shares purchased by the Holder in the Offering (not including Warrant shares); provided, however, that in no event will the penalties exceed twelve percent (12%) of the aggregate Shares purchased by the holder. The Company must keep the Registration Statement effective until (i) the Series D Registrable Shares have been sold in accordance with Rule 144.

In connection with our Series E Subscription Agreement entered into on April 25, 2019 and May 24, 2019, we entered into a Registration Rights Agreement, pursuant to which we have agreed that within one hundred eighty (180) calendar days from each of the closings on April 25, 2019 and May 24, 2019, respectively (the "Series E Offering"), the Company will file a registration statement with the SEC, or the Registration Statement, covering (a) the shares of common stock issued in the Series E Offering, (b) the shares of common stock issuable upon exercise of the Series E Stock Purchase Warrants, (c) any shares of common stock then issued or issuable as partial liquidated damage pursuant to the agreement and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar even with respect to the foregoing, collectively, the Series E Registrable shares. If the Company is late in filing the Registration Statement, if the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission within fifteen (15) trading days after receipt of comments by or notice from the Commission that such amendment is required for such Registration Statement to be declared effective by the Effectiveness Date, or if the Registration Statement is not declared effective within one hundred twenty (120) days after the filing date of the Registration Statement, the Company will issue to each Holder an amount in shares of the Company's common stock, as partial liquidated damages equal to two percent (2%) per month multiplied by the number of shares purchased by the Holder in the Offering (not including Warrant shares); provided, however, that in no event will the penalties exceed twelve percent (12%) of the aggregate Shares purchased by the holder. The Company must keep the Registration Statement effective until (i) the Series E Registrable Shares have been sold in accordance with Rule 144.

We will pay all expenses in connection with any registration obligation provided in the Registration Rights Agreement, including, without limitation, all registration, filing, stock exchange fees, printing expenses, all fees and expenses of complying with applicable securities laws, and the fees and disbursements of our counsel and of our independent accountants. Each investor will be responsible for its own sales commissions, if any, transfer taxes and the expenses of any attorney or other advisor such investor decides to employ.

All descriptions of the Registration Rights Agreement herein are qualified in their entirety by reference to the text thereof filed as an exhibit to the registration statement of which this prospectus forms a part.

#### Dividends

We have not paid any cash dividends to stockholders. The declaration of any future cash dividend will be at the discretion of our Board and will depend upon our earnings, if any, our capital requirements and financial position, our general economic conditions, and other pertinent conditions. It is our present intention not to pay any cash dividends in the foreseeable future, but rather to reinvest earnings, if any, in our business operations.

#### Warrants

As of the date of this prospectus, the Series A Common Stock Warrants entitle their holders to purchase 244,041 shares of common stock, with a term of five (5) years from the date of issuance and an exercise price of \$8.00 per share. The Series A Common Stock Warrants contain "certain customary exceptions, as well as customary provisions for adjustment in the event of stock splits, subdivision or combination, mergers, etc."

As of the date of this prospectus, the Series B Common Stock Warrants entitle their holders to purchase 163,620 shares of common stock, with a term of five (5) years from the date of issuance and an exercise price of \$12.00 per share. The Series B Common Stock Warrants contain "certain customary exceptions, as well as customary provisions for adjustment in the event of stock splits, subdivision or combination, mergers, etc."

As of the date of this prospectus, the Series C Common Stock Warrants entitle their holders to purchase 87,644 shares of common stock, with a term of five (5) years from the date of issuance and an exercise price of \$14.00 per share. The Series C Common Stock Warrants contain "certain customary exceptions, as well as customary provisions for adjustment in the event of stock splits, subdivision or combination, mergers, etc."

As of the date of this prospectus, the Series D Common Stock Warrants entitle their holders to purchase 209,665 shares of common stock, with a term of five (5) years from the date of issuance and an exercise price of \$14.00 per share. The Series D Common Stock Warrants contain "certain customary exceptions, as well as customary provisions for adjustment in the event of stock splits, subdivision or combination, mergers, etc."

As of the date of this prospectus, the Series E Common Stock Warrants entitle their holders to purchase 33,986 shares of common stock, with a term of three (3) years from the date of issuance and an exercise price of \$16.00 per share. The Series E Common Stock Warrants contain "certain customary exceptions, as well as customary provisions for adjustment in the event of stock splits, subdivision or combination, mergers, etc."

# Securities Authorized for Issuance under Equity Compensation Plans

As of the date of this prospectus, we had outstanding options to purchase an aggregate of 4,751,332 shares of our common stock pursuant to our 2018 Plan, at a weighted-average exercise price of \$1.65 per share, and 4,586,554 shares of our common stock remain available for future grant or issuance under the 2018 Plan.

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

Nevada law, our Articles of Incorporation, and our Bylaws contain certain provisions that 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. 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.

Undesignated Preferred Stock. The ability of our Board, without action by the stockholders, to issue up to 6,250,000 shares of preferred stock, which was previously authorized but remain undesignated, with voting or other rights or preferences as designated by our Board could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of us.

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

Stockholder Action by Written Consent. Our Bylaws allow for any action that may be taken at any annual or special meeting of the stockholders to be taken without a meeting and without prior notice, if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding shares having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

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 can elect all of the directors standing for election, if they choose, 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 "combination" transactions 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 the transaction is approved by the Board prior to the date the interested stockholder obtained such status or 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, and 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.

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 in an offer or acquisition and acquired within 90 days thereof 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.

A corporation may elect to not be governed by, or "opt out" of, the control share provisions by making an election in its articles of incorporation or bylaws, provided that the opt-out election must be in place on the 10th day following the date an acquiring person has acquired a controlling interest, that is, crossing any of the three thresholds described above. We have not opted out of the control share statutes, and will be subject to these statutes if we are an "issuing corporation" as defined in such statutes.

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, if applicable, could have the effect of discouraging takeovers of us.

Amendment of Charter and Bylaw Provisions. The amendment of any of the above provisions would require approval by holders of at least a majority of the total voting power of all of our outstanding voting stock, except in certain circumstances.

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.

# MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of material U.S. federal income tax considerations applicable to U.S. Holders (as defined below) of our shares of common stock purchased from Lincoln Park in this offering as a consequence of the ownership and disposition of our shares of common stock. This discussion addresses only those holders that hold our shares of common stock as capital assets (generally property held for investment). This summary does not discuss all aspects of U.S. federal income taxation that may be relevant to particular investors in light of their particular circumstances, or to investors subject to special tax rules, such as:

- · financial institutions or financial services entities,
- · insurance companies,
- · mutual funds,
- pension plans,
- S corporations,
- · broker-dealers,
- · traders in securities that elect mark-to-market treatment,
- · regulated investment companies,
- · real estate investment trusts,
- trusts and estates,
- tax-exempt organizations (including private foundations),
- · passive foreign investment companies,
- · controlled foreign corporations,
- · governments or agencies or instrumentalities thereof,
- investors that hold our shares of common stock or who will hold our shares of common stock as part of a "straddle," "hedge," "conversion," "synthetic security," "constructive ownership transaction," "constructive sale" or other integrated transaction for U.S. federal income tax purposes,
- · investors subject to the alternative minimum tax provisions of the Internal Revenue Code of 1986, as amended (the "Code"),
- $\cdot$  U.S. Holders that have a functional currency other than the U.S. dollar,
- · accrual method taxpayers that file applicable financial statements as described in Section 451(b) of the Code,
- · U.S. expatriates,

- · investors subject to the U.S. "inversion" rules,
- · holders owning or considered as owning (directly, indirectly, or through attribution) five percent (measured by vote or value) or more of our shares of common stock, or
- persons who received any of our shares of common stock or warrants issued pursuant to an exercise of employee share options, in connection with employee share incentive plans or otherwise as compensation, fees or other consideration in connection with performance of services or similar arrangements.

This summary does not discuss any state, local, or non-U.S. tax considerations, any non-income tax (such as gift or estate tax) considerations, the alternative minimum tax or the Medicare tax on net investment income.

If a partnership (including an entity or arrangement treated as a partnership for U.S. federal income tax purposes) is the beneficial owner of our shares of common stock, the tax treatment of a partner in such partnership will generally depend upon the status of the partner, the activities of the partnership and the partner and certain determinations made at the partner level. If you are a partner of a partnership holding our shares of common stock, you are urged to consult your tax advisor regarding the tax consequences to you of the ownership and disposition of our shares of common stock by the partnership.

This summary is based upon the Code, the regulations promulgated by the U.S. Treasury Department, current administrative interpretations and practices of the U.S. Internal Revenue Service ("IRS"), and judicial decisions, all as currently in effect and all of which are subject to differing interpretations or to change, possibly with retroactive effect. We have not sought, and do not intend to seek, a ruling from the IRS as to any U.S. federal income tax consideration described herein. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax considerations described below.

# THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY. EACH U.S. HOLDER SHOULD CONSULT ITS TAX ADVISOR WITH RESPECT TO THE PARTICULAR TAX CONSEQUENCES TO SUCH HOLDER OF THE OWNERSHIP AND DISPOSITION OF OUR SHARES OF COMMON STOCK.

For purposes of this discussion, a "U.S. Holder" is a beneficial owner of our shares of common stock that is:

- an individual who is a U.S. citizen or resident of the United States,
- a corporation (including an entity treated as a corporation for U.S. federal income tax purposes) created or organized (or treated as created or organized) in or under the laws of the United States, any state thereof or the District of Columbia,
- an estate the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source, or
- a trust (i) the administration of which is subject to the primary supervision of a U.S. court and which has one or more U.S. persons (within the meaning of the Code) having the authority to control all substantial decisions of the trust or (ii) that has in effect a valid election under applicable Treasury Regulations to be treated as a U.S. person.

# Gain or Loss on Sale, Taxable Exchange or Other Taxable Disposition of Shares of Common Stock

Upon any sale, exchange or other taxable disposition of our shares of common stock, a U.S. Holder generally will recognize gain or loss in an amount equal to the difference between (i) the sum of (x) the amount of cash and (y) the fair market value of any other property, received in such sale, exchange or other taxable disposition and (ii) the U.S. Holder's adjusted tax basis in such shares of common stock as calculated in U.S. dollars. Any such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if the U.S. Holder's holding period for such shares of common stock exceeds one year. Long-term capital gain realized by a non-corporate U.S.

Holder generally will be taxable at a reduced rate. The deduction of capital losses is subject to limitations. U.S. Holders are urged to consult their tax advisors regarding the tax consequences if a non-U.S. tax is imposed on a disposition of our shares of common stock, including the availability of the foreign tax credit under their particular circumstances.

#### Passive Foreign Investment Company Rules

A "foreign" (i.e., non-U.S.) corporation will be classified as a "passive foreign investment company" or PFIC for any taxable year if either (i) at least 75 percent of its gross income for such year consists of certain types of "passive" income, or (ii) at least 50 percent of the value of its assets (generally determined on the basis of a quarterly average) during such year is attributable to assets that produce passive income or are held for the production of passive income. Based on the current and anticipated value of our assets and composition of our income and assets, we do not presently expect to be a PFIC for the current taxable year or the foreseeable future. However, while we do not expect to be or become a PFIC, no assurance can be given in this regard because the determination as to whether we are a PFIC for any taxable year is a fact-intensive determination that depends, in part, upon the composition and classification of our income and assets, which cannot be determined until after the end of a taxable year.

If we are classified as a PFIC in any year during which a U.S. Holder owns our shares of common stock, certain adverse tax consequences could apply to such U.S. Holder. Certain elections may be available (including a mark-to-market election) to U.S. Holders that may mitigate some of those adverse consequences. U.S. Holders should consult their tax advisors regarding the U.S. federal income tax consequences of owning and disposing of our shares of common stock if we are or become a PFIC.

# Additional Reporting Requirements

Certain U.S. Holders holding specified foreign financial assets with an aggregate value in excess of the applicable dollar thresholds are required to report information to the IRS relating to our shares of common stock, subject to certain exceptions (including an exception for shares of common stock held in accounts maintained by U.S. financial institutions), by attaching a complete IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their tax return for each year in which they hold our shares of common stock. Substantial penalties apply to any failure to file IRS Form 8938 and the period of limitations on assessment and collection of U.S. federal income taxes will be extended in the event of a failure to comply. U.S. Holders are urged to consult their tax advisors regarding the effect, if any, of these rules on the ownership and disposition of our shares of common stock.

# Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries are subject to information reporting, and may be subject to backup withholding. Backup withholding generally will not apply, however, to a U.S. Holder if (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a holder will be allowed as a credit against such holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS.

THE U.S. FEDERAL INCOME TAX DISCUSSION SET FORTH ABOVE IS INCLUDED FOR GENERAL INFORMATION ONLY AND MAY NOT BE APPLICABLE TO YOU DEPENDING UPON YOUR PARTICULAR SITUATION. PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THE TAX CONSEQUENCES TO THEM OF THE OWNERSHIP AND DISPOSITION OF OUR SHARES OF COMMON STOCK INCLUDING THE TAX CONSEQUENCES UNDER STATE, LOCAL, ESTATE, FOREIGN AND OTHER TAX LAWS AND TAX TREATIES AND THE POSSIBLE EFFECTS OF CHANGES IN U.S. OR OTHER TAX LAWS.

#### LEGAL MATTERS

Selected legal matters with respect to 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. as of August 31, 2021 and 2020 and for each of the two years in the period ended August 31, 2021 and the financial statements as of December 31, 2021 and for the transition period of September 1, 2021 to December 31, 2021 included in this prospectus or incorporated by reference have been so included in reliance on the report 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 is 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 is 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" information that we file with it into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. 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 and any accompanying prospectus supplement.

We incorporate by reference the documents listed below that we have previously filed with the SEC:

- our Annual Report on Form 10-K for the period ended August 31, 2021, filed with the SEC on November 29, 2021;
- · our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021, filed with the SEC on March 21, 2022:
- our Quarterly Report on Form 10-Q filed with the SEC on May 12, 2022;
- · our Current Reports on Form 8-K filed with the SEC on March 10, 2022, March 16, 2022, and May 16, 2022; and
- the description of our common stock contained in our Annual Report on Form 10-KT, filed on March 21, 2022, including any amendments thereto or reports filed for the purposes of updating this description.

In addition, all documents subsequently filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including all such documents we may file with the SEC after the date on which the registration statement that includes this prospectus was initially filed and prior to effectiveness of the registration statement with the SEC, or prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus; provided, however, that all reports, exhibits and other information that we "furnish" to the SEC will not be considered incorporated by reference into this prospectus. Any statement contained in a document incorporated by reference in this prospectus or any prospectus supplement shall be deemed to be modified or superseded to the extent that a statement contained herein, therein or in any other subsequently filed document that also is incorporated by reference herein or therein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any prospectus supplement.

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.

# FINANCIAL STATEMENTS

You should consider carefully the information contained or incorporated by reference in this prospectus, including any risks in the section entitled "Financial Statements" contained in any supplements to this prospectus and in our Annual Report on Form 10-K for the fiscal year ended August 31, 2021, our Annual Report on Form 10-KT for the transition period from September 1, 2021 to December 31, 2021, and our Quarterly Report on Form 10-Q and in our subsequent filings with the SEC.

# 15,000,000 Shares of Common Stock



Artelo Biosciences, Inc.
PROSPECTUS
June 1, 2022