

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

Post-Effective Amendment No. 1 to  
FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**SAB BIOTHERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**85-3899721**

(Identification No.)  
(I.R.S. Employer)

**2100 East 54th Street North**  
**Sioux Falls, South Dakota 57104**  
**Telephone: 605-679-6980**

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

**Eddie J. Sullivan, PhD**  
**President and Chief Executive Officer**  
**SAB Biotherapeutics, Inc.**  
**2100 East 54th Street North**  
**Sioux Falls, South Dakota 57104**  
**Telephone: 605-679-6980**

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

*Copy to:*

**Brian Lee, Esq.**  
**Ilan Katz, Esq.**  
**Dentons US LLP**  
**1221 Avenue of the Americas**  
**New York, NY 10020**  
**(212) 768-6700**

**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this registration statement.

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

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

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

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

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

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

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

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

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

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

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## EXPLANATORY NOTE

On May 1, 2023, SAB Biotherapeutics, Inc. (“SAB,” the “Company,” “we,” “us” or “our”) filed a registration statement on Form S-3 (File No. 333-271543) (the “Original Resale Registration Statement”) with the Securities and Exchange Commission (the “SEC”). The Original Resale Registration Statement was initially declared effective by the SEC on May 9, 2023.

This registration statement on Form S-3 constitutes a post-effective amendment (the “Post-Effective Amendment”) to the Original Resale Registration Statement. We are filing this Post-Effective Amendment on Form S-3 for the purpose of including updated information regarding the selling securityholder named therein, and increase the aggregate number of shares of common stock being offered by the selling securityholder from 300,000 to 2,216,894. This Post-Effective Amendment contains an updated prospectus related to the offering and sale of the shares that were registered for resale on the Original Resale Registration Statement.

All filing fees payable in connection with the registration of the shares registered by the Original Resale Registration Statement were paid by the Company at the time of the initial filing of such Original Registration Statement. The Company has paid an additional filing fee to incorporate the additional shares offered by the Selling Securityholder.

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

**SUBJECT TO COMPLETION, DATED JULY 10, 2023**

**PRELIMINARY PROSPECTUS**

**Up to 1,916,894 Shares of Common Stock and  
Up to 300,000 Shares of Common Stock Issuable Upon Exercise of Warrants**

**SAB Biotherapeutics, Inc.**

This prospectus relates to up to 2,216,894 shares of common stock, par value \$0.0001 per share, that the selling securityholder identified in this prospectus may sell from time to time in one or more transactions in amounts, at prices and on terms that will be determined at the time of the offering. The shares of common stock being offered for resale include 1,916,894 shares of common stock (the “Shares”) and up to 300,000 shares of common stock issuable upon the exercise of warrants (the “Warrants” and the shares underlying the Warrants, the “Warrant Shares”), that were initially issued pursuant to an agreement with Ladenburg Thalmann & Co. Inc. We issued such shares and warrants to the selling securityholder in transactions not involving any public offering. See the section entitled “Selling Securityholder” in this prospectus.

Our registration of the Shares and the Warrant Shares covered by this prospectus does not mean that the selling securityholder will offer or sell any of the Shares or Warrant Shares. The selling securityholder may offer, sell or distribute all or a portion of the securities hereby registered publicly or through private transactions at prevailing market prices or at negotiated prices. We will not receive any of the proceeds from such sales of the Shares or the Warrant Shares, except with respect to amounts received by us upon exercise of the Warrants. We will bear all costs, expenses and fees in connection with the registration of these securities, including with regard to compliance with state securities or “blue sky” laws. The selling securityholder will bear all commissions and discounts, if any, attributable to its sale of the shares of common stock.

This prospectus describes the general manner in which the shares may be offered and sold by the selling securityholder. If necessary, the specific manner in which the shares may be offered and sold will be described in a supplement to this prospectus. Any such prospectus supplement may also add, update or change information in this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with this offering. You should carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectuses, as well as the documents incorporated by reference or deemed to be incorporated by reference into this prospectus, carefully before you invest. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus.

Our common stock is traded on the Nasdaq Global Market under the symbol “SABS”. On July 7, 2023, the closing price of our common stock on the Nasdaq Global Market was \$[ ] per share.

**We are an “emerging growth company” under applicable federal securities laws and are subject to reduced public company reporting requirements.**

**Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading “Risk Factors” on page 4, of this prospectus and contained in our filings made with the Securities and Exchange Commission and any applicable prospectus supplement.**

**NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY 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 \_\_\_\_\_, 2023

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## ABOUT THIS PROSPECTUS

In this prospectus, unless the context suggests otherwise, references to “SAB Biotherapeutics,” “SAB,” the “Company,” “we,” “us” and “our” refer to SAB Biotherapeutics, Inc.

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. This prospectus describes the general manner in which the selling securityholder identified in this prospectus may offer from time to time in one or more transactions up to 2,216,894 shares of our common stock. We will not receive any proceeds from the sale by such selling securityholder of the securities offered by it described in this prospectus.

This prospectus only provides you with a general description of the common stock that may be sold in these transactions. If necessary, the specific manner in which the shares of common stock may be offered and sold will be described in a supplement to this prospectus, which supplement may also add, update or change any of the information contained in this prospectus. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to this offering. This prospectus does not contain all of the information included in the registration statement we filed with the SEC. For further information about us or the common stock offered hereby, you should carefully read this prospectus, any applicable prospectus supplement, any related free writing prospectuses, the information and documents incorporated herein by reference and the additional information under the heading “Where You Can Find More Information” before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectuses that we may authorize to be provided to you. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. **This prospectus and any accompanying supplement to this prospectus are not an offer to sell the common stock and it is not soliciting an offer to buy the common stock in any jurisdiction where the offer or sale is not permitted.** You should assume that the information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectuses, as well as information we have previously filed with the SEC, and incorporated by reference, is accurate only as of the date on the cover of those documents. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates. To the extent there are inconsistencies between any prospectus supplement, this prospectus and/or any documents incorporated by reference, the document with the most recent date will control.

## TRADEMARKS

We and our subsidiaries own or have rights to trademarks, trade names and service marks that they use in connection with the operation of their business. In addition, their names, logos and website names and addresses are their trademarks or service marks. Other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners. Solely for convenience, in some cases, the trademarks, trade names and service marks referred to in this prospectus are listed without the applicable ®, ™ and SM symbols, but they will assert, to the fullest extent under applicable law, their rights to these trademarks, trade names and service marks.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read the risks and uncertainties referenced under the heading “Risk Factors” on page 3 of this prospectus and contained in our filings made with the SEC and any applicable prospectus supplement”*

### Business Overview

We are a clinical-stage biopharmaceutical company focused on the development of proprietary immunotherapeutic fully-human antibodies, or fully-human immunoglobulins (hIgGs), to treat and prevent immune and autoimmune disorders as well as infectious diseases that have significant mortality and health impacts on high-risk patients. These antibodies are target-specific and polyclonal, meaning they are made up of many different hIgGs that bind to multiple sites specific to an immunogen as opposed to a monoclonal antibody that binds to only a single site. Our development programs include autoimmune disorders, gastroenterological, and respiratory diseases. Using private resources and more than \$200 million of funds awarded by the U.S. Government emerging infectious disease and medical countermeasures programs since September 2019, we have developed a novel drug development platform, which we refer to as our DiversitAb platform. This platform is based on the natural human immune system and has the unique capability to generate large quantities of specifically targeted, high-potency, hIgG that target multiple epitopes, antigens or binding sites without the need for producing these antibodies from convalescent plasma or human donors. We have refined, optimized, and advanced genetic engineering and antibody science to develop transchromosomal cattle (which we refer to as Tc Bovine) that produce hIgGs and the engineering of the platform drives IgG1 production primarily. These Tc Bovine form a key component of our versatile DiversitAb platform, a fully scalable production system for producing immunotherapies to multiple disease indications. Our platform represents the technology that can produce disease-targeted, fully human IgG without the need for human donors.

We are leveraging our DiversitAb platform to discover and develop product candidates with the potential to be first-in-class against novel targets or best-in-class against known, complex targets that treat diseases with significant unmet medical needs, including immune and autoimmune disorders, infectious gastroenterological and respiratory diseases, and oncology.

### Recent Milestones

Since September 2019, we achieved multiple milestones, including:

- Established proof-of-concept for our DiversitAb platform and Chemistry, Manufacturing and Controls (CMC) for multiple disease indications.
- Performed multiple clinical trials establishing the safety profile of hpAbs produced in DiversitAb platform in hundreds of patients and have demonstrated proof of clinical concept for our DiversitAb platform across three SAB-sponsored INDs and one CTA (filed Ex-US) that encompass seven clinical trials from Phase 1 to Phase 3 across treatment of three indications (MERS, Influenza, and COVID-19).
  - Completed Phase 2a challenge study for SAB-176 in adults infected with influenza virus and Phase 2 study for SAB-185 in adults infected with SARS-CoV-2 virus.
  - Announced topline data demonstrating SAB-176 met its primary endpoint in our Phase 2a challenge study in adults infected with influenza virus.
  - Reported positive topline Phase 2 virology data demonstrating SAB-185 met criteria for advancement to Phase 3 and completed 50% enrollment in Phase 3. Phase 3 patient safety follow-up is ongoing.
- Announced that recent data demonstrated that SAB-185 retains neutralization activity against the Omicron SARS-CoV-2 in an in vitro pseudovirus model and in a human ACE2 receptor in vivo model study.
- Completed IND enabling in-vivo pilot and GLP tox safety and pharmacodynamic studies for SAB-142 for autoimmune disorders including Type 1 Diabetes.
- Established proof-of-concept for production of human anti-idiotypic IgGs to human auto-antibodies using the DiversitAb platform.

On April 13, 2023, we announced that the U.S. Food and Drug Administration (“FDA”) granted Fast Track Designation for SAB-176 an investigational therapeutic for Type A and Type B influenza illness in high-risk patients, including those who have anti-viral resistant strains. Fast Track Designation is intended to facilitate development and expedite the review of drugs that treat serious conditions and fill an unmet medical need so a product can potentially be approved and reach patients more quickly. Fast Track Designation enables the company to have more frequent interactions with the FDA throughout the drug development process and allows for eligibility for priority review and accelerated approval if certain criteria are met, as well as a rolling review. The Fast Track Designation must continue to be met or FDA can withdraw the designation. In addition to the Fast Track designation, the Company has also received FDA guidance and regulatory alignment on advancing SAB-176 into the next phase of development, including a Phase 2b trial study design. The study will evaluate the safety and efficacy of SAB-176 in high-risk patients with Type A or Type B influenza illness, including those who have anti-viral treatment resistant strains.

### **Corporate Information**

We were incorporated in the State of Delaware on November 12, 2020, as a special purpose acquisition company under the name Big Cypress Acquisition Corp. (BCYP). On January 14, 2021, BCYP completed its initial public offering. On October 22, 2021, BCYP consummated a business combination with SAB Biotherapeutics, Inc. (the “Business Combination”), which changed its name to SAB Sciences, Inc. In connection with the closing of the business combination, BCYP changed its name to SAB Biotherapeutics, Inc. and SAB Sciences, Inc. became a subsidiary of SAB Biotherapeutics, Inc.

Our principal executive offices are located at 2100 East 54th Street North Sioux Falls, South Dakota 57104, and our telephone number is 605-679-6980. Our website is located at <https://www.sab.bio>. We do not incorporate by reference into this prospectus the information on, or accessible through, our website. Our common stock trades on The Nasdaq Global Market under the symbol “SABS”.

### **Ladenburg Agreement**

On March 21, 2023, we entered into an agreement (the “2023 Ladenburg Agreement”) with Ladenburg Thalmann & Co. Inc. (“Ladenburg”), pursuant to which, among other things, on March 24, 2023, we issued to Ladenburg a warrant to purchase up to 300,000 shares of common stock, exercisable for three years from the date of issuance at \$0.5424 per share. On June 30, 2023, pursuant to the 2023 Ladenburg Agreement, we issued to Ladenburg 1,916,894 shares of common stock.

Any issuance of securities under the Ladenburg Agreement has been made or shall be made pursuant to exemptions provided by Section 4(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”), as transactions not involving a public offering, and Rule 506 of Regulation D promulgated under the Securities Act.

### **Implications of Being an Emerging Growth Company and a Smaller Reporting Company**

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, as amended, and therefore we intend to take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in this prospectus, our periodic reports and our proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year in which the market value of our common stock that is held by non-affiliates equals or exceeds \$700 million as of the end of that year’s second fiscal quarter, (ii) the last day of the fiscal year in which we have total annual gross revenue of \$1.235 billion or more during such fiscal year (as indexed for inflation), (iii) the date on which we have issued more than \$1 billion in non-convertible debt in the prior three-year period or (iv) December 31, 2026.

We are also a “smaller reporting company” as defined under the Securities Act and the Securities Exchange Act of 1934, as amended (the “Exchange Act”). We may continue to be a smaller reporting company so long as either (i) the market value of shares of our common stock held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of shares of our common stock held by non-affiliates is less than \$700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and have reduced disclosure obligations regarding executive compensation, and, similar to emerging growth companies, if we are a smaller reporting company under the requirements of (ii) above, we would not be required to obtain an attestation report on internal control over financial reporting issued by our independent registered public accounting firm.



## ABOUT THIS OFFERING

This prospectus relates to the resale by the selling securityholder identified in this prospectus of up to 2,216,894 shares of our common stock. All of the shares, when sold, will be sold by the selling securityholder. The selling securityholder may sell its shares of common stock from time to time on prices and on terms that will be determined at the time of sale. We will not receive any proceeds from the sale of the shares of common stock by the selling securityholder.

Common Stock Offered by the Selling securityholder:	Up to 2,216,894 shares of common stock, par value \$0.0001 per share, including up to 300,000 shares that are issuable to the selling securityholder upon exercise of the Warrants.
Terms of the Offering:	The selling securityholder will determine when and how they sell the shares of common stock offered in this prospectus, as described in “Plan of Distribution.”
Use of Proceeds:	We will not receive any proceeds from the sale of the 2,216,894 shares of common stock by the selling securityholder under this prospectus. We will, however, bear the costs incurred in connection with the registration of these shares of common stock and, upon a cash exercise of the Warrants, we will receive the exercise price of the Warrants.
Risk Factors:	An investment in the common stock offered under this prospectus involves a high degree of risk. See “Risk Factors” beginning on page 3 of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors you should consider carefully when making an investment decision.
Nasdaq Symbol:	“SABS”.

## RISK FACTORS

Investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully all of the information included in and incorporated by reference or deemed to be incorporated by reference in this prospectus or the applicable prospectus supplement, including the risk factors incorporated by reference herein from our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on April 14, 2023, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein or in any applicable prospectus supplement or any free writing prospectus. Each of these risk factors could have a material adverse effect on our business, results of operations, financial position or cash flows, which may result in the loss of all or part of your investment. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also impair our business operations. If any of these risks actually occur, our business and financial results could be harmed. In that case, the trading price of our common stock or other securities could decline. To the extent a particular offering implicates additional known material risks, we will include a discussion of those risks in the applicable prospectus supplement.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus constitute “forward-looking statements” for purposes of the federal securities laws. Our forward-looking statements include, but are not limited to, statements regarding our or our management team’s expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intends,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements in this prospectus may include, for example, statements about:

- the success, cost and timing of our product development activities and clinical trials, including statements regarding our plans for clinical development of our product candidates, the initiation and completion of clinical trials and related preparatory work and the expected timing of the availability of results of clinical trials;
- our ability to recruit and enroll suitable patients in our clinical trials;
- the potential indications, attributes and benefits of our product candidates;
- our ability to obtain and maintain regulatory approval for our product candidates, and any related restrictions, limitations or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations, including funding necessary to complete further development, approval and, if approved, commercialization of our product candidates;
- the period over which we anticipate our existing cash and cash equivalents will be sufficient to fund our operating expense and capital expenditure requirements;
- the potential for our business development efforts to maximize the potential value of our portfolio;
- our ability to identify, in-license or acquire additional product candidates;
- our ability to compete with other companies currently marketing or engaged in the development of treatments for the indications that we are pursuing for our product candidates;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates and the duration of such protection;
- our ability to contract with and rely on third parties to assist in conducting our clinical trials and manufacturing our product candidates;
- our manufacturing capabilities, third-party contractor capabilities and strategy;
- our plans related to manufacturing, supply and other collaborative agreements;
- the size and growth potential of the markets for our product candidates, and our ability to serve those markets, either alone or in partnership with others;
- the rate and degree of market acceptance of our product candidates, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- regulatory developments in the United States and foreign countries;
- the impact of laws, regulations, accounting standards, regulatory requirements, judicial decisions and guidance issued by authoritative bodies;
- our ability to attract and retain key scientific, medical, commercial or management personnel;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our financial performance;
- our ability to maintain our listing on The Nasdaq Global Market;
- our ability to continue as a going concern; and
- the effect of COVID-19 on the foregoing.

Operating expenses and cash flow projections involve a high degree of uncertainty, including variances in future spending rates due to changes in corporate priorities, the timing and outcomes of clinical trials, competitive developments and the impact on expenditures and available capital from licensing and strategic collaboration opportunities. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue one or more of our drug development or discovery research programs and delay or abandon potential commercialization efforts. We may not ever have any products that generate significant revenue. Therefore, current and prospective security holders are cautioned that there can be no assurance that the forward-looking statements included in this document will prove to be accurate. Biotechnology companies have suffered significant setbacks in advanced clinical trials, even after obtaining promising earlier trial results. Data obtained from such clinical trials are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. After gaining approval of a drug product, pharmaceutical and biotechnology companies face considerable challenges in marketing and distributing their products, and may never become profitable.

The forward-looking statements contained in this prospectus are based on current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in the section titled “Risk Factors.” Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. Some of these risks and uncertainties may in the future be amplified by the COVID-19 pandemic and there may be additional risks that we consider immaterial or which are unknown. It is not possible to predict or identify all such risks.

Any forward-looking statements that we make in this prospectus speak only as of the date of such statements and we undertake no obligation to publicly update any forward-looking statements or to publicly announce revisions to any of the forward-looking statements, whether as a result of new information, future events or otherwise.

You should read this prospectus completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements in this prospectus by these cautionary statements.

## USE OF PROCEEDS

We will not receive any proceeds from the sale of up to 2,216,894 shares of common stock, including up to 300,000 shares that are issuable to the selling securityholder upon exercise of warrants under this prospectus (and/or its respective pledgees, donees, transferees, distributees, or other successors in interest that receive such shares as a gift, partnership distribution or other non-sale related transfer). We will, however, bear the costs incurred in connection with the registration of these shares of common stock and, upon the exercise of the warrants, we will receive the exercise price of the Warrants. If all of the Warrants were to be exercised in cash at the current exercise price of \$0.5424, we would receive gross proceeds of \$162,720. We cannot predict when or if the Warrants will be exercised. It is possible that the Warrants may expire and may never be exercised.

**SELLING SECURITYHOLDER**

The common stock being offered by the selling securityholder includes (i) the Shares issued pursuant to the Ladenburg Agreement and (i) those issuable to the selling securityholder upon exercise of the Warrants issued pursuant to the Ladenburg Agreement. For additional information regarding the Ladenburg Agreement, see “Prospectus Summary - Ladenburg Agreement.” We are registering the Shares and the Warrant Shares in order to permit the selling securityholder to offer such shares for resale from time to time. Except for the ownership of the Shares and the Warrants issued pursuant to Ladenburg Agreement and as further described below, the selling securityholder has not had any material relationship with us within the past three years.

Ladenburg acted as joint book-running manager in connection with our initial public offering of securities, pursuant to an underwriting agreement between Ladenburg and Big Cypress Acquisition Corp., dated January 11, 2021.

The table below lists the selling securityholder and other information regarding the beneficial ownership of the common stock each of the selling securityholder. The second column lists the number of shares of common stock beneficially owned by each selling securityholder, based on its ownership of the Shares and the Warrants, as of July 7, 2023, assuming exercise of all Warrants held by the selling securityholder on that date, without regard to any limitations on exercise.

The third column lists the common stock being offered by this prospectus by the selling securityholder.

In accordance with the terms of the registration rights agreement entered into between the Company and each of the selling securityholder, this prospectus generally covers the resale of (i) the Shares and (ii) the maximum number of shares of common stock issuable upon exercise of the related Warrants, determined as if the outstanding Warrants were exercised in full as of the trading day immediately preceding the date the registration statement of which this prospectus forms a part was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the Warrants. The fourth column assumes the sale of all of the shares of common stock offered by the selling securityholder pursuant to this prospectus.

Under the terms of the Warrants, a selling securityholder may not exercise the Warrants to the extent such exercise would cause such selling securityholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed, at the direction of the selling securityholder, 4.99% or 9.99%, of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination of the shares of common stock issuable upon exercise of such Warrants which have not been exercised. The number of shares of common stock in the columns below do not reflect this limitation. The selling securityholder may sell all, some or none of its shares of common stock in this offering. See “*Plan of Distribution.*”

Name of Selling Securityholder	Shares Beneficially Owned Before the Offering (1)		Maximum Number of Shares to be Offered in the Offering	Number of Shares Beneficially Owned Immediately After Sale of Maximum Number of Shares in the Offering (1)(2)	
	Number	Percentage		Number	Percentage (3)
	Ladenburg Thalmann & Co. Inc. (4)	2,339,083(5)		4.4%	2,216,894

\* Less than 1%

† Represents shares beneficially owned prior to the Offering.

- (1) Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. Shares of common stock subject to warrants, options or rights currently exercisable, or exercisable within 60 days of July 7, 2023 are counted as beneficially owned by the selling securityholder.
- (2) Assumes all of the shares of common stock offered are sold.
- (3) Based on 50,397,762 shares of our common stock outstanding on July 7, 2023. Assumes all warrants to purchase shares of common stock have been exercised and the underlying shares of common stock have been sold.
- (4) This selling securityholder is, or is an affiliate of, a registered broker-dealer. The selling securityholder has represented to us that the shares held by it were purchased in the ordinary course of business and that at the time of purchase, it did not have any agreements or understandings, directly or indirectly, with any person to distribute such shares. To the extent that we become aware that such persons or entities did not acquire their shares in the ordinary course of business, or did have such an agreement or understanding, we will file a supplement to the prospectus to designate such affiliate as an “underwriter” within the meaning of the Securities Act.
- (5) Consists of (i) 2,039,083 shares of common stock held by Ladenburg and (ii) 300,000 shares underlying warrants.

We may require the selling securityholder to suspend the sales of the common stock offered by this prospectus upon the occurrence of any event that makes any statement in this prospectus or the related registration statement untrue in any material respect or that requires the changing of statements in these documents in order to make statements in those documents not misleading.

**Information concerning the selling securityholder may change from time to time and any changed information will be set forth in prospectus supplements if and when necessary.**

## DESCRIPTION OF OUR SECURITIES

*The following is a summary of the rights of our securities. This summary is qualified by reference to the complete text of our amended and restated certificate of incorporation and amended and restated bylaws filed as exhibits to the registration statement of which this prospectus forms a part.*

The following summary of the material terms of our securities is not intended to be a complete summary of the rights and preferences of such securities. The descriptions below are qualified by reference to the actual text of the Amended and Restated Certificate of Incorporation. We urge you to read our Amended and Restated Certificate of Incorporation in its entirety for a complete description of the rights and preferences of our securities.

### **Authorized and Outstanding Stock**

Our authorized capital stock consists of 490,000,000 shares of common stock, \$0.0001 par value per share, and 10,000,000 shares of preferred stock, \$0.0001 par value per share. As of July 7, 2023, there were 52,861,314 shares of our common stock issued, and 52,314,656 outstanding, and no shares of preferred stock issued and outstanding. As of July 7, 2023, the Company has not designated any series of preferred stock.

### **Common Stock**

#### *Voting Power*

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of common stock possess all voting power for the election of our directors and all other matters requiring stockholder action. Holders of common stock are entitled to one vote per share on matters to be voted on by stockholders.

#### *Dividends*

Holders of common stock will be entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor. In no event will any stock dividends or stock splits or combinations of stock be declared or made on common stock unless the shares of common stock at the time outstanding are treated equally and identically.

#### *Liquidation, Dissolution and Winding Up*

In the event of our voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of the common stock will be entitled to receive an equal amount per share of all of our assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock have been satisfied.

#### *Preemptive or Other Rights*

Our stockholders have no preemptive or other subscription rights and there are no sinking fund or redemption provisions applicable to common stock.

#### *Election of Directors*

Our board of directors is divided into three classes, Class I, Class II and Class III, with only one class of directors being elected in each year and each class serving a three-year term, except with respect to the election of directors at the special meeting held in connection with the Business Combination, Class I directors are elected to an initial one-year term (and three-year terms subsequently), the Class II directors are elected to an initial two-year term (and three-year terms subsequently) and the Class III directors are elected to an initial three-year term (and three-year terms subsequently). There is no cumulative voting with respect to the election of directors, with the result that the holders of more than 50% of the shares voted for the election of directors can elect all of the directors.



## **Preferred Stock**

Our Amended and Restated Certificate of Incorporation provides that shares of preferred stock may be issued from time to time in one or more series. Our board of directors is authorized to fix the voting rights, if any, designations, powers and preferences, the relative, participating, optional or other special rights, and any qualifications, limitations and restrictions thereof, applicable to the shares of each series of preferred stock. The Board is able to, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of common stock and could have anti-takeover effects. The ability of our board of directors to issue preferred stock without stockholder approval could have the effect of delaying, deferring or preventing a change of control of the Company or the removal of existing management.

We have no preferred stock outstanding at the date hereof.

## **Stock Awards**

Upon the closing of the Business Combination, we assumed and converted Legacy SAB stock awards that were outstanding under Legacy SAB's equity incentive plans into stock awards to purchase an aggregate of 4,681,861 shares of common stock. As of the closing of the Business Combination, 11,000,000 shares of common stock were reserved for future issuance under our Plan, which amount may be subject to increase from time to time. As of July 7, 2023, 12,877,631 shares of common stock were reserved for future issuance under our Plan. Stock option awards covering 5,733,510 shares of Common Stock have been issued under our Plan as of July 7, 2023. Restricted stock units covering 668,875 shares of Common Stock have been issued under our Plan as of July 7, 2023.

## **Warrants**

### ***Public Warrants***

As of July 7, 2023, there were 5,958,600 warrants to purchase common stock outstanding, consisting of 5,750,000 public warrants and 208,600 private placement warrants. Each warrant entitles the registered holder to purchase one share of our common stock at a price of \$11.50 per share at any time commencing on January 14, 2022. The warrants will expire on October 22, 2026 at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

### ***December 2022 Private Placement Warrants***

On December 7, 2022, we issued an aggregate of 7,363,377 warrants to investors in a private placement (the "December 2022 Private Placement") and an aggregate of 210,193 warrants to Brookline Capital Markets, a division of Arcadia Securities, LLC as placement agent in the December 2022 Private Placement. On February 3, 2023, the Company filed a registration statement on Form S-3 (File No. 333-269565) to register the shares of common stock (and the shares of common stock underlying the warrants) sold in the December 2022 Private Placement. The registration statement on Form S-3 was declared effective on February 10, 2023.

### ***March 2023 and July 2023 Private Placement Warrants***

As described elsewhere in this prospectus, the Company issued to Ladenburg a warrant to purchase up to 300,000 shares on March 24, 2023. This prospectus registers 2,216,894 shares of common stock, including the 300,000 shares underlying these warrants. For more information, see the section of this prospectus entitled "Prospectus Summary - Ladenburg Agreement."

## **Certain Anti-Takeover Provisions of Delaware Law**

Our Amended and Restated Bylaws provide that special meetings of our stockholders may be called only by a majority vote of the board of directors, by the Chairperson of the board of directors, or by the chief executive officer.

### *Special Meetings of Stockholders*

Our Amended and Restated Bylaws provide that special meetings of our stockholders may be called only by a majority vote of the board of directors, by the Chairperson of the board of directors, or by the chief executive officer.

### *Advance Notice Requirements for Stockholder Proposals and Director Nominations*

Our Amended and Restated Bylaws provide that stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders, must provide timely notice of their intent in writing. To be timely under our current bylaws and the Amended and Restated Bylaws, a stockholder's notice will need to be received by the company secretary at our principal executive offices not later than the close of business on the 90th day nor earlier than the open of business on the 120th day prior to the first anniversary of the preceding year's annual meeting. Pursuant to Rule 14a-8 of the Exchange Act, proposals seeking inclusion in our annual proxy statement must comply with the notice periods contained therein. Our Amended and Restated Bylaws also specify certain requirements as to the form and content of a stockholders' meeting. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

### *Authorized but Unissued Shares*

Our authorized but unissued common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

### *Exclusive Forum Selection*

The Amended and Restated Certificate of Incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (subject to certain limited exceptions) shall be the sole and exclusive forum for any of the following claims (i) any derivative claim or cause of action brought on our behalf, (ii) any claim or cause of action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or to the Company's stockholders, (iii) any claim or cause of action against us, our directors, officers or employees arising pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation or the Amended and Restated Bylaws, and (iv) any claim or cause of action against the Company or any director, officer or other employee of the Company governed by the internal affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court's having personal jurisdiction over the indispensable parties named as defendants. Any person or entity holding, owning or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to such provisions. If the claim is brought outside of Delaware, the stockholder asserting such claim will be deemed to have consented to service of process on such stockholder's counsel, except with respect to claims: (A) as to which the Court of Chancery in the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to personal jurisdiction of the Court of Chancery within ten days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, (C) for which the Court of Chancery does not have subject matter jurisdiction, or (D) any action arising under the Securities Act.

Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law in the types of lawsuits to which they apply, a court may determine that these provisions are unenforceable, and to the extent they are enforceable, the provisions may have the effect of discouraging lawsuits against our directors and officers, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. Additionally, we cannot be certain that a court will decide that these provisions are either applicable or enforceable, and if a court were to find the choice of forum provisions contained in our Amended and Restated Certificate of Incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

Our Amended and Restated Certificate of Incorporation provides that the exclusive forum provision will be applicable to the fullest extent permitted by applicable law. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, the Proposed Charter provides that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

#### *Section 203 of the Delaware General Corporation Law*

We are subject to provisions of Section 203 of the DGCL regulating corporate takeovers under our Amended and Restated Certificate of Incorporation. This statute prevents certain Delaware corporations, under certain circumstances, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of our assets. However, the above provisions of Section 203 do not apply if:

- our board of directors approves the transaction that made the stockholder an “interested stockholder,” prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, our initial business combination is approved by our board of directors and authorized at a meeting of our stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Under certain circumstances, this provision will make it more difficult for a person who would be an “interested stockholder” to effect various business combinations with the Company for a three-year period. This provision may encourage companies interested in acquiring us to negotiate in advance with our board of directors because the stockholder approval requirement would be avoided if our board of directors approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in our board of directors and may make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

#### **Limitation on Liability and Indemnification of Directors and Officers**

The Amended and Restated Certificate of Incorporation eliminates directors’ liability for monetary damages to the fullest extent permitted by applicable law. Our Amended and Restated Certificate of Incorporation requires the Company to indemnify and advance expenses to, to the fullest extent permitted by applicable law, its directors, officers and agents and prohibit any retroactive changes to the rights or protections or increase the liability of any director in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification. We believe these provisions in our Amended and Restated Certificate of Incorporation are necessary to attract and retain qualified persons as directors and officers. However, these provisions may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. Furthermore, a stockholder’s investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

#### **Transfer Agent**

The transfer agent for our securities is Continental Stock Transfer & Trust Company. The transfer agent’s address is One State Street Plaza, 30th Floor New York, New York 10004.

## PLAN OF DISTRIBUTION

We are registering the shares of common stock on behalf of the selling securityholder. The selling securityholder and any of its pledgees, assignees, distributees, and successors-in-interest in our common stock received after the date of this prospectus from the selling securityholder as a partnership distribution, gift, pledge, or other transfer, may, from time to time, sell, transfer, or otherwise dispose of any or all of the common stock covered hereby on the Nasdaq Global Market or any other stock exchange, market or trading facility on which the common stock is traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. The selling securityholder may use any one or more of the following methods when selling common stock:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the common stock as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- exchange distributions in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- transactions through broker-dealers that agree with the selling securityholder to sell a specified number of such common stock at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling securityholder may also sell common stock under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

In connection with the distribution of the shares, the selling securityholder may also enter into hedging transactions with broker-dealers or other financial institutions. In connection such transactions, broker-dealers or other financial institutions may engage in short sales of our common stock in the course of hedging the positions they assume with the selling securityholder. The selling securityholder may also: (i) sell our common stock short and redeliver the registered shares to close out such short positions; (ii) enter into option or other types of transactions that requires any of the selling securityholder to deliver the shares to a broker-dealer, who will then resell or transfer the shares pursuant to this prospectus (as supplemented or amended to reflect such transaction); or (iii) loan or pledge the shares to a broker-dealer who may sell the loaned shares or, in the event of default, sell the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Broker-dealers engaged by the selling securityholder may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling securityholder (or, if any broker-dealer acts as agent for the purchaser of common stock, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2121.

The selling securityholder and any broker-dealers or agents that are involved in selling the common stock may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the common stock purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The selling securityholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock.

We are required to pay certain fees and expenses incurred by us incident to the registration of the common stock. We will not receive any proceeds from the sale of the shares by the selling securityholder.

We agreed to keep this prospectus effective until the earlier of (i) the date that the common stock may be resold by the selling securityholder without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) the date that all of the common stock has been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale common stock will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale common stock covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale common stock may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling securityholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling securityholder or any other person. We will make copies of this prospectus available to the selling securityholder and have informed it of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

## LEGAL MATTERS

The validity of the common stock being offered hereby will be passed on by Dentons US LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in an applicable prospectus supplement.

## EXPERTS

The consolidated financial statements of SAB Biotherapeutics, Inc. as of and for the years ended December 31, 2022 and 2021, included in our Annual Report on Form 10-K for the year ended December 31, 2022, have been audited by Mayer Hoffman McCann P.C., independent registered public accounting firm, as set forth in their report (which report an explanatory paragraph regarding the existence of substantial doubt about our ability to continue as a going concern), and have been incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing, in giving said reports.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Our website address is <https://www.sab.bio>. Information contained on or accessible through our website is not a part of this prospectus and is not incorporated by reference herein, and the inclusion of our website address in this prospectus is an inactive textual reference only.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents filed with the SEC listed below:

- Our Amendment No. 1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on [April 28, 2023](#);
- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with SEC on [April 14, 2023](#); and
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, filed with the SEC on [May 15, 2023](#);
- Our Current Reports on Form 8-K filed with the SEC on [January 5, 2023](#), [January 9, 2023](#), [January 10, 2023](#), [January 27, 2023](#), [February 7, 2023](#), [March 24, 2023](#), [March 31, 2023](#), [April 4, 2023](#), [April 14, 2023](#), [April 19, 2023](#), [April 28, 2023](#), [May 12, 2023](#), [June 14, 2023](#), [June 21, 2023](#) and [July 3, 2023](#); and
- The description of our common stock and warrants in our registration statement on [Form 8-A filed with the SEC on January 8, 2021](#), including any amendments or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this prospectus and prior to the termination of the offering of the securities to which this prospectus relates, shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing of such documents. However, any documents or portions thereof, whether specifically listed above or filed in the future, that are not deemed "filed" with the SEC, including without limitation any information furnished pursuant to Item 2.02 or 7.01 of Form 8-K or certain exhibits furnished pursuant to Item 9.01 of Form 8-K, shall not be deemed to be incorporated by reference in this prospectus.

Any statement in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein 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.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

SAB Biotherapeutics, Inc.  
2100 East 54th Street North  
Sioux Falls, South Dakota 57104  
Attn: Corporate Secretary  
605-679-6980

**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth all costs and expenses payable by us in connection with the sale of the common stock being registered hereunder. All of the amounts shown shall be paid by us and are estimates except for the SEC registration fee.

SEC Registration Fee	\$	173.22
Accounting Fees and Expenses	\$	15,000.00
Legal Fees and Expenses	\$	125,000.00
Miscellaneous	\$	3,500.00
Total	\$	<u>143,673.22</u>

**Item 15. Indemnification of Directors and Officers.**

Section 145 of the DGCL provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent of the registrant. The DGCL provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaws, agreement, vote of stockholders or disinterested directors or otherwise. The Registrant's Certificate of Incorporation and Bylaws provide for indemnification by the Registrant of its directors and officers to the fullest extent permitted by the DGCL.

Section 102(b)(7) of the DGCL permits a corporation to provide in its Certificate of Incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for unlawful payments of dividends or unlawful stock repurchases redemptions or other distributions or (4) for any transaction from which the director derived an improper personal benefit. The registrant's Certificate of Incorporation provides for such limitation of liability to the fullest extent permitted by the DGCL.

The registrant has entered into indemnification agreements with each of its directors and executive officers to provide contractual indemnification in addition to the indemnification provided in our Certificate of Incorporation. Each indemnification agreement provides for indemnification and advancements by the registrant of certain expenses and costs relating to claims, suits or proceedings arising from his or her service to the registrant or, at our request, service to other entities, as officers or directors to the maximum extent permitted by applicable law. We believe that these provisions and agreements are necessary to attract qualified directors.

The registrant also maintains standard policies of insurance under which coverage is provided (1) to its directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act, while acting directors and officers of the registrant, and (2) to the registrant with respect to payments which may be made by the Registrant to such officers and directors pursuant to any indemnification provision contained in the Registrant's Certificate of Incorporation and Bylaws or otherwise as a matter of law.

**Item 16. Exhibits.**

See the Exhibit Index attached to this registration statement and incorporated herein by this reference.

**Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or any decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*Provided, however,* that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrants pursuant to the foregoing provisions described in Item 15, or otherwise, the registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrants of expenses incurred or paid by a director, officer or controlling person of any registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, each appropriate registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.



## EXHIBIT INDEX

Exhibit Number	Description	Incorporated by Reference			
		Schedule/ Form	File No.	Exhibit	Filing Date
3.1	<a href="#">Amended and Restated Certificate of Incorporation</a>	8-K	001-39871	3.1	October 28, 2021
3.2	<a href="#">Amended and Restated Bylaws</a>	8-K	001-39871	3.2	October 28, 2021
4.1	<a href="#">Specimen common stock Certificate of Registrant</a>	S-1/A	333-258869	4.2	January 4, 2021
4.2	<a href="#">Form of Warrant</a>	S-3	333-271543	4.2	May 1, 2023
5.1*	<a href="#">Opinion of Dentons US LLP</a>				
23.1*	<a href="#">Consent of Independent Registered Public Accounting Firm</a>				
23.2*	<a href="#">Consent of Dentons US LLP (included in Exhibit 5.1)</a>				
24.1	<a href="#">Power of Attorney (included on a signature page of the initial filing of this Registration Statement)</a>				
107*	<a href="#">Filing Fee Table</a>				

\* Filed herewith



July [ ], 2023

SAB Biotherapeutics, Inc.  
2100 East 54th Street North  
Sioux Falls, South Dakota 57104

Re: SAB Biotherapeutics, Inc. Post-Effective Amendment to Registration Statement on Form S-3

Ladies and Gentlemen:

In our capacity as counsel to SAB Biotherapeutics, Inc. a Delaware corporation (the “**Company**”), we have been asked to render this opinion in connection with a Post-Effective Amendment (the “**Post-Effective Amendment**”) to the Registration Statement on Form S-3, originally filed by the Company with the Securities and Exchange Commission (the “**Commission**”) on May 1, 2023 (the “**Registration Statement**,” and the prospectus which forms a part of the Registration Statement, as amended by the Post-Effective Amendment, the “**Prospectus**”) under the Securities Act of 1933, as amended (the “**Act**”). The Post-Effective Amendment, filed on July [ ], 2023, covers the resale of up to an aggregate of 2,216,894 shares of the Company’s common stock, par value \$0.0001 per share (the “**Common Stock**”), including (i) 1,916,894 shares (the “**Shares**”) of Common Stock and (ii) 300,000 shares (the “**Warrant Shares**”) of Common Stock issuable upon exercise of warrants (the “**Warrants**”).

We are delivering this opinion to you at your request in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act.

In connection with rendering this opinion, we have examined and are familiar with the Company’s (i) certificate of incorporation and bylaws, each as amended and restated; (ii) the Registration Statement, as amended by the Post-Effective Amendment, including the Prospectus; (iii) the form of Warrant, (iv) corporate proceedings of the Company relating to the issuance of the securities described herein; and (v) and such other instruments and documents as we have deemed relevant under the circumstances.

In making the aforesaid examinations, we have assumed the genuineness of all signatures and the conformity to original documents of all copies furnished to us as original or photostatic copies. We have also assumed that the corporate records furnished to us by the Company include all corporate proceedings taken by the Company to date. We have assumed without investigation that there has been no relevant change or development between the dates as of which the information cited in the preceding sentence was given and the date of this letter. As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought to independently verify such matters.

Based upon the foregoing, and in reliance thereon, and subject to the qualifications, limitations and exceptions stated herein, we are of the opinion, having due regard for such legal considerations as we deem relevant, that (i) the Shares are validly issued, fully paid and non-assessable, and (ii) the Warrant Shares, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and non-assessable.

Our opinion herein is expressed solely with respect to the Delaware General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof and as of the effective date of the Post-Effective Amendment, and we assume no obligation to revise or supplement this opinion after the effective date of the Post-Effective Amendment should the law be changed by legislative action, judicial decision or otherwise. Where our opinions expressed herein refer to events to occur at a future date, we have assumed that there will have been no changes in the relevant law or facts between the date hereof and such future date. Our opinions expressed herein are limited to the matters expressly stated herein and no opinion is implied or may be inferred beyond the matters expressly stated. Not in limitation of the foregoing, we are not rendering any opinion as to the compliance with any other federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

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We hereby consent to the use of our opinion as Exhibit 5.1 to the Post-Effective Amendment and to the reference to this firm and this opinion under the heading “Legal Matters” in the Prospectus comprising a part of the Registration Statement, as amended to the Post-Effective Amendment, and any amendment thereto. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Dentons US LLP  
**Dentons US LLP**

Zaanouni Law Firm & Associates ► LuatViet ► Fernanda Lopes & Associados ► Guevara & Gutierrez ► Paz Horowitz Abogados ► Sirote ► Adepetun Caxton-Martins Agbor & Segun ► Davis Brown ► East African Law Chambers ► For more information on the firms that have come together to form Dentons, go to [dentons.com/legacyfirms](https://www.dentons.com/legacyfirms)

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Post-Effective Amendment No. 1 to the registration statement on Form S-3 and related prospectus of our report dated April 14, 2023, with respect to the consolidated financial statements of SAB Biotherapeutics, Inc. and Subsidiaries as of December 31, 2022 and 2021 and for each of the two years in the period ended December 31, 2022 (which report includes an explanatory paragraph relating to the existence of substantial doubt about the Company's ability to continue as a going concern), included in the Annual Report on Form 10-K for the year ended December 31, 2022, and to the reference to us under the heading "Experts" in the prospectus, which is part of this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California  
July 10, 2023

## Calculation of Filing Fee Tables

## Form S-3

(Form Type)

## SAB Biotherapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered <sup>(1)</sup>	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees Previously Paid	Equity	Common Stock, par value \$0.0001 per share underlying Warrants	457(g)	300,000	\$ 0.5424 <sup>(2)</sup>	\$ 162,720	0.0001102	\$ 17.93
Fees to Be Paid	Equity	Common Stock, par value \$0.0001 per share	457(c)	1,916,894	\$ 0.82 <sup>(3)</sup>	\$ 1,571,853	0.0001102	\$ 173.22
<b>Total Offering Amounts</b>						\$ 1,734,573		\$ 191.15
<b>Total Fees Previously Paid</b>						\$ 162,720		17.93
<b>Total Fee Offsets</b>								—
<b>Net Fee Due</b>						\$ 1,571,853		\$ 173.22

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the common shares offered hereby and the common shares issuable upon exercise of warrants also include an indeterminate number of additional common shares as may from time to time become issuable by reason of share splits, share dividends, recapitalizations or other similar transactions.

(2) With respect to the common stock underlying the warrants offered by the selling stockholders, \$0.5424 per share, which is the exercise price of the warrants, for purposes of calculating the registration fee pursuant to Rule 457(g) under the Securities Act.

(3) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act, based on average of high and low price per share of the common stock on July 5, 2023.