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

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)

85-3899721
(I.R.S. Employer
Identification Number)

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)

Copies to:
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Approximate date of commencement of proposed sale to public: From time to time or at one time after this registration statement becomes effective in light of market conditions and other factors.

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

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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, as amended (the "Securities Act"), other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, 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, 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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting 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 the Securities Act.

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

The information in this prospectus is not complete and may be changed. The Registrant 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 it is not soliciting an offer to buy these securities in any state where an offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 9, 2023

PROSPECTUS

\$50,000,000



**Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units**

From time to time, we may offer and sell up to an aggregate of \$50,000,000 of any combination of the securities described in this prospectus, either individually or in combination. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants. We may also issue units comprised of one or more shares of common stock, shares of preferred stock, debt securities, warrants and/or rights in any combination.

When we decide to sell particular securities, we will provide you with the specific terms and the offering price of the securities we are then offering in one or more prospectus supplements to this prospectus. The prospectus supplement may add to, change or update information contained in this prospectus. The prospectus supplement may also contain important information about U.S. federal income tax consequences. You should carefully read this prospectus, together with any prospectus supplements and information incorporated by reference in this prospectus and any prospectus supplements, before you decide to invest. **This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.**

Our common stock is quoted on The Nasdaq Global Market under the trading symbol "SABS." Any common stock sold pursuant to this prospectus or any prospectus supplement will be listed on that exchange, subject to official notice of issuance. Each prospectus supplement to this prospectus will contain information, where applicable, as to any other listing on any national securities exchange of the securities covered by the prospectus supplement. On May 5, 2023, the last reported sale price of our common stock was \$0.87 per share.

We may offer and sell the securities described in this prospectus to or through one or more underwriters, dealers or agents, or directly to purchasers on an immediate, continuous or delayed basis. The names of any underwriters, dealers or agents involved in the sale of any securities, the specific manner in which they may be offered and any applicable commissions or discounts will be set forth in an accompanying prospectus supplement covering the sales of those securities. As of May 5, 2023, the aggregate market value of our outstanding common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 was approximately \$31.1 million, which is based on 35,843,245 shares of common stock held by non-affiliates as of such date and a price of \$0.87 per share, the closing price of our common stock on May 5, 2023. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus is a part with a value of more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75 million. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to, and including, the date of this prospectus.

Investing in our securities involves significant risks. We strongly recommend that you read carefully the risks we describe in this prospectus and in any accompanying prospectus supplement, as well as the risk factors that are incorporated by reference into this prospectus from our filings made with the Securities and Exchange Commission. See "Risk Factors" beginning on page 5 of this prospectus.

We may sell the securities directly or to or through underwriters or dealers, and also to other purchasers or through agents. The names of any underwriters or agents that are included in a sale of securities to you, and any applicable commissions or discounts, will be stated in an accompanying prospectus supplement.

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

The date of this prospectus is _____, 2023.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, we may, from time to time, offer and sell common stock, preferred stock, debt securities, warrants for debt and equity securities, rights to purchase common stock, preferred stock, or warrants in one or more series, and units consisting of the foregoing in one or more transactions.

This prospectus only provides you with a general description of the securities we may sell in these transactions. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement also may add, update or change 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 these offerings. 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 securities 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 Additional 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 the accompanying supplement to this prospectus are not an offer to sell these securities and it is not soliciting an offer to buy these securities 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.

This prospectus may not be used to consummate sales of any of these securities unless it is accompanied by a prospectus supplement. 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.

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

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 selected information appearing elsewhere in this prospectus, or incorporated by reference into this prospectus, and does not contain all of the information that you should consider in making your investment decision. You should carefully read this entire prospectus, the applicable prospectus supplement and any free writing prospectus, including the risks of investing in our securities discussed 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 and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

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.

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”.

Securities We May Offer Under This Prospectus

We may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in combination, up to a total dollar amount of \$50,000,000, from time to time under this prospectus, together with the applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of any offering. We may also offer common stock, preferred stock and/or debt securities upon the exercise of warrants, and we may offer common stock or preferred stock upon the conversion of preferred stock or debt securities. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity date, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exercise, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- material or special U.S. federal income tax considerations, if any.

The applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and certain information incorporated herein by reference contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in the forward-looking statements. The statements contained in this prospectus that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements are often identified by the use of words such as, but not limited to, “anticipate,” “believe,” “can,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “seek,” “should,” “strategy,” “target,” “will,” “would” and similar expressions or variations intended to identify forward-looking statements. These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements.

Factors that might cause these differences include the following:

- 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.

RISK FACTORS

Before you invest in any of the company's securities, in addition to the other information in this prospectus and the applicable prospectus supplement, you should carefully consider (i) the risk factors contained in the Company's most recent annual report on Form 10-K, which is incorporated by reference into this prospectus, (ii) all of the other information included or incorporated by reference in this prospectus, and (iii) the applicable prospectus supplement, as the same may be updated from time to time by the Company's future filings under the Exchange Act.

The risks and uncertainties described herein are not the only ones facing the Company. Additional risks and uncertainties not presently known to the Company or that the Company currently deems immaterial may also impair its business or operations. Any adverse effect on the Company's business, financial condition or operating results could result in a decline in the value of the securities and the loss of all or part of your investment. The prospectus supplement applicable to each series of securities the Company offers may contain a discussion of additional risks applicable to an investment in the Company and the securities the Company is offering under that prospectus supplement.

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we will use the net proceeds from the sale of securities offered by this prospectus for development and commercialization of product candidates, working capital, and general corporate purposes. In addition, we believe opportunities may exist from time to time to expand our current business through acquisitions or in-licenses of, or investments in, complementary companies, medicines, intellectual property or technologies. While we have no current agreements or commitments for any specific acquisitions, in-licenses or investments at this time, we may use a portion of the net proceeds for these purposes. As of the date of this prospectus, we have not identified any specific and material proposed uses of the anticipated proceeds.

Our expected use of net proceeds from the sale of any securities offered pursuant to the applicable prospectus supplement for such offering will vary depending on our then current intentions based upon our plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of any offering or the amounts that we will actually spend on any specific uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including the factors described under or referenced under the heading “Risk Factors” in this prospectus. As a result, unless otherwise specified in the prospectus supplement, our management will have broad discretion in its application of the net proceeds, and investors will be relying on our judgment in such application.

Pending use of net proceeds from the sale of securities offered by this prospectus and the applicable prospectus supplement for such sale, we may invest in short-term and intermediate-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DESCRIPTION OF CAPITAL STOCK WE MAY OFFER

The following description summarizes important terms of our capital stock. For a complete description, you should refer to our certificate of incorporation, as amended, and bylaws, which are incorporated by reference as exhibits to the registration statement of which this prospectus is a part, as well as the relevant portions of the Delaware General Corporation Law (the "DGCL").

General

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.

The following description of our common stock and preferred stock, together with the additional information included in any applicable prospectus supplements or related free writing prospectuses, summarizes the material terms and provisions of these types of securities, but it is not complete. For the complete terms of our common stock and preferred stock, please refer to our certificate of incorporation, as amended, and our bylaws that are incorporated by reference into the registration statement which includes this prospectus and, with respect to preferred stock, any certificate of designation that we may file with the SEC for a series of preferred stock we may designate, if any.

We will describe in a prospectus supplement or related free writing prospectuses, the specific terms of any common stock or preferred stock we may offer pursuant to this prospectus. If indicated in a prospectus supplement, the terms of such common stock or preferred stock may differ from the terms described below.

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.

Certain Anti-Takeover Provisions of Delaware Law

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 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 Amended and Restated Certificate of Incorporation 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.

DESCRIPTION OF DEBT SECURITIES WE MAY OFFER

The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectuses, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the “indentures,” we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture and any supplemental indentures that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term “trustee” to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture and any supplemental indentures applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in an officers' certificate or by a supplemental indenture. Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series. We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title;
- the principal amount being offered and, if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depositary will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a U.S. person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- provisions for a sinking fund purchase or other analogous fund, if any, including the date, if any, on which, and the price at which we are obligated, pursuant thereto or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- provisions relating to modification of the terms of the security or the rights of the security holder;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;

- make investments or other restricted payments;
- sell, transfer or otherwise dispose of assets;
- enter into sale-leaseback transactions;
- engage in transactions with stockholders or affiliates;
- issue or sell stock of our subsidiaries;
- effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- information describing any book-entry features;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an “original issue discount” as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations.

U.S. federal income tax consequences applicable to debt securities sold at an original issue discount will be described in the applicable prospectus supplement. In addition, U.S. federal income tax or other consequences applicable to any debt securities which are denominated in a currency or currency unit other than U.S. dollars may be described in the applicable prospectus supplement.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms under which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquiror of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;

- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or we and the trustee receive notice from the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement any additional events of default relating to the relevant series of debt securities. If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default arises due to the occurrence of certain specified bankruptcy, insolvency or reorganization events, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any such waiver shall cure the default or event of default.

Subject to the terms of the applicable indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holders is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

The indentures provide that if an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture, or that the trustee determines is unduly prejudicial to the rights of any other holder of the relevant series of debt securities, or that would involve the trustee in personal liability. Prior to taking any action under the indentures, the trustee will be entitled to indemnification against all costs, expenses and liabilities that would be incurred by taking or not taking such action.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense to be incurred in compliance with instituting the proceeding as trustee; and

- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 60 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

The indentures provide that if a default occurs and is continuing and is actually known to a responsible officer of the trustee, the trustee must mail to each holder notice of the default within 45 days after it occurs, unless such default has been cured. Except in the case of a default in the payment of principal or premium of, or interest on, any debt security or certain other defaults specified in an indenture, the trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors, or responsible officers of the trustee, in good faith determine that withholding notice is in the best interests of holders of the relevant series of debt securities.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under “Consolidation, Merger or Sale”;
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issue, authentication and delivery of debt securities, as set forth in such indenture;
- to provide for the issuance of, and establish the form and terms and conditions of, the debt securities of any series as provided under “General,” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities and to make all appropriate changes for such purpose;
- to add such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series in any material respect; provided that any amendment made solely to conform the provisions of the indenture to the corresponding description of the debt securities contained in the applicable prospectus or prospectus supplement shall be deemed not to adversely affect the interests of the holders of such debt securities; provided further, that in connection with any such amendment we will provide the trustee with an officers’ certificate certifying that such amendment will not adversely affect the rights or interests of the holders of such debt securities.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any debt securities;
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver;
- changing any of our obligations to pay additional amounts;
- reducing the amount of principal of an original issue discount security or any other note payable upon acceleration of the maturity thereof;
- changing the currency in which any note or any premium or interest is payable;
- impairing the right to enforce any payment on or with respect to any note;
- adversely changing the right to convert or exchange, including decreasing the conversion rate or increasing the conversion price of, such note, if applicable;
- in the case of the subordinated indenture, modifying the subordination provisions in a manner adverse to the holders of the subordinated debt securities;
- if the debt securities are secured, changing the terms and conditions pursuant to which the debt securities are secured in a manner adverse to the holders of the secured debt securities;
- reducing the requirements contained in the applicable indenture for quorum or voting;
- changing any of our obligations to maintain an office or agency in the places and for the purposes required by the indentures; or
- modifying any of the above provisions set forth in this paragraph.

Discharge

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we may elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;

- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, and any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture and is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur. However, upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest payment.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that, unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee in the City of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of, or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking Debt Securities

The subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will be unsecured and will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS WE MAY OFFER

As of May 5, 2023, there were 5,958,600 warrants to purchase common stock outstanding, which warrants were issued in connection with our initial public offering, and which warrants consist 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.

Additionally, as of May 5, 2023, there were 7,575,290 warrants to purchase common stock outstanding, which warrants were issued in connection with a private placement that the Company closed in December 2022, and which warrants consist of 7,363,377 warrants issued to the investors in the private placement and 210,913 warrants issued to the placement agent in the private placement. Each warrant entitles the registered holder to purchase one share of our common stock. The warrants issued to the placement agent are exercisable at a price of \$1.35 per share at any time commencing June 7, 2023. The warrants issued to the investors are exercisable at a price of \$1.08 per share at any time commencing June 7, 2023. The warrants will expire five years from the date of issuance.

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. The issuance of the warrant under the Ladenburg Agreement has been made pursuant to exemptions provided by Section 4(a)(2) of the Securities Act, as transactions not involving a public offering, and Rule 506 of Regulation D promulgated under the Securities Act. On May 1, 2023, we filed a registration statement on Form S-3 (File No. 333-271-543) to register under the Securities Act, the shares underlying the warrants issued to Ladenburg pursuant to the Ladenburg Agreement.

We typically issue warrants to purchase shares of our common stock to investors as part of a financing transaction, or in connection with services rendered by placement agents and outside consultants.

We may issue warrants to purchase debt securities, preferred stock, common stock or any combination of the foregoing. We may issue warrants independently or together with any other securities we offer under a prospectus supplement. The warrants may be attached to or separate from the securities. We will issue each series of warrants under a separate warrant agreement to be entered into between a warrant agent and us. The warrant agent will act solely as our agent in connection with the warrants and will not have any obligations or relationship of agency or trust for or with holders or beneficial owners of warrants. The following outlines some of the general terms and provisions of the warrants that we may issue from time to time. When we issue warrants, we will provide the specific terms of the warrants and the applicable warrant agreement in a prospectus supplement and any related free writing prospectuses and such terms may differ from those described below. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement. The following description, and any description of the warrants included in a prospectus supplement, may not be complete and is subject to and qualified in its entirety by reference to the terms and provisions of the applicable warrant agreement.

Equity Warrants

We will describe in the applicable prospectus supplement and any related free writing prospectuses the terms of the preferred stock warrants or common stock warrants being offered, the warrant agreement relating to the preferred stock warrants or common stock warrants and the warrant certificates representing the preferred stock warrants or common stock warrants, including, as applicable:

- the title of the warrants;
- the securities for which the warrants are exercisable;
- the price or prices at which the warrants will be issued;
- if applicable, the number of warrants issued with each share of preferred stock or share of common stock;
- if applicable, the date on and after which the warrants and the related preferred stock or common stock will be separately transferable;
- the date on which the right to exercise the warrants will commence, and the date on which the right will expire;
- the maximum or minimum number of warrants which may be exercised at any time;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- information with respect to book-entry procedures, if any;
- a discussion of the material U.S. federal income tax considerations applicable to exercise of the warrants; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Unless otherwise provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses, holders of equity warrants will not be entitled, by virtue of being such holders, to vote, consent, receive dividends, receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter, or to exercise any rights whatsoever as stockholders.

Except as provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses, the exercise price payable and the number of shares of common stock or preferred stock purchasable upon the exercise of each warrant will be subject to adjustment in certain events, including the issuance of a stock dividend to holders of common stock or preferred stock or a stock split, reverse stock split, combination, subdivision or reclassification of common stock or preferred stock. In lieu of adjusting the number of shares of common stock or preferred stock purchasable upon exercise of each warrant, we may elect to adjust the number of warrants. Unless otherwise provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses, no adjustments in the number of shares purchasable upon exercise of the warrants will be required until all cumulative adjustments require an adjustment of at least 1% thereof. No fractional shares will be issued upon exercise of warrants, but we will pay the cash value of any fractional shares otherwise issuable. Notwithstanding the foregoing, except as otherwise provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses, in case of any consolidation, merger, or sale or conveyance of our property as an entirety or substantially as an entirety, the holder of each outstanding warrant will have the right to the kind and amount of shares of stock and other securities and property, including cash, receivable by a holder of the number of shares of common stock or preferred stock into which each warrant was exercisable immediately prior to the particular triggering event.

Debt Warrants

We will describe in the applicable prospectus supplement and any related free writing prospectuses the terms of the debt warrants being offered, the warrant agreement relating to the debt warrants and the debt warrant certificates representing the debt warrants, including, as applicable:

- the title of the debt warrants;
- the aggregate number of the debt warrants;
- the price or prices at which the debt warrants will be issued;
- the designation, aggregate principal amount and terms of the debt securities purchasable upon exercise of the debt warrants, and the procedures and conditions relating to the exercise of the debt warrants;
- the designation and terms of any related debt securities with which the debt warrants are issued, and the number of the debt warrants issued with each security;
- the date, if any, on and after which the debt warrants and the related debt securities will be separately transferable;
- the principal amount of debt securities purchasable upon exercise of each debt warrant, and the price at which the principal amount of the debt securities may be purchased upon exercise;
- the date on which the right to exercise the debt warrants will commence, and the date on which the right will expire;
- the maximum or minimum number of the debt warrants that may be exercised at any time;
- information with respect to book-entry procedures, if any;
- changes to or adjustments in the exercise price of the debt warrants;
- a discussion of the material U.S. federal income tax considerations applicable to the exercise of the debt warrants; and
- any other terms of the debt warrants and terms, procedures and limitations relating to the exercise of the debt warrants.

As may be permitted under the warrant agreement, holders may exchange debt warrant certificates for new debt warrant certificates of different denominations, and may exercise debt warrants at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement and any related free writing prospectuses. Prior to the exercise of their debt warrants, holders of debt warrants will not have any of the rights of holders of the securities purchasable upon the exercise, and will not be entitled to payments of principal, premium or interest on the securities purchasable upon the exercise, of debt warrants.

Exercise of Warrants

Each warrant will entitle the holder of the warrant to purchase for cash at the exercise price provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses the principal amount of debt securities or shares of preferred stock or shares of common stock being offered. Holders may exercise warrants at any time up to the close of business on the expiration date provided in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses. After the close of business on the expiration date, unexercised warrants are void.

Holders may exercise warrants as described in the applicable warrant agreement and corresponding prospectus supplement or any free writing prospectuses relating to the warrants being offered. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable warrant agreement and corresponding prospectus supplement or any related free writing prospectuses, we will, as soon as practicable, forward the debt securities, shares of preferred stock or shares of common stock purchasable upon the exercise of the warrant. If less than all of the warrants represented by the warrant certificate are exercised, we will issue a new warrant certificate for the remaining warrants.

DESCRIPTION OF RIGHTS WE MAY OFFER

We may issue rights to purchase shares of our common stock, preferred stock, or warrants in one or more series. Rights may be issued independently or together with any other offered security and may or may not be transferable by the person purchasing or receiving the subscription rights. In connection with any rights offering to our stockholders, we may enter into a standby underwriting arrangement with one or more underwriters pursuant to which the underwriters will purchase any of the offered securities remaining unsubscribed after the expiration of the rights offering. In connection with a rights offering to our stockholders, we will distribute certificates evidencing the rights and an applicable prospectus supplement to our stockholders on the record date that we set for receiving rights in the rights offering. An applicable prospectus supplement will describe the following terms of rights in respect of which this prospectus is being delivered:

- the title of the rights;
- the securities for which the rights are exercisable;
- the exercise price for the rights;
- the date of determining the security holders entitled to the rights distribution;
- the number of the rights issued to each security holder;
- the extent to which the rights are transferable;
- if applicable, a discussion of the material United States federal income tax considerations applicable to the issuance or exercise of the rights;
- the date on which the right to exercise the rights shall commence, and the date on which the rights shall expire (subject to any extension);
- the conditions to completion of the rights offering;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the rights;
- the extent to which the rights include an over-subscription privilege with respect to unsubscribed securities;
- if applicable, the material terms of any standby underwriting or other purchase arrangement that we may enter into in connection with the rights offering; and

- any other terms of the rights, including terms, procedures and limits relating to the exchange or exercise of the rights.

Each right will entitle the holder to purchase an amount of securities for cash, at the exercise price. Rights may be exercised at any time up to the close of business on the expiration date of the rights. After the close of business on the expiration date, all unexercised rights will become void. The manner in which rights may be exercised will be described in an applicable prospectus supplement. We may, but are not be required to, permit the exercise of rights through the delivery of a notice of guaranteed delivery from a bank, a trust company, or a Nasdaq member guaranteeing delivery of (i) payment of the exercise price for the securities for which the rights are being exercised, and (ii) a properly completed and executed rights certificate. The notice of guaranteed delivery must be received by the rights agent before the expiration of the rights, and the rights agent will not honor a notice of guaranteed delivery unless a properly completed and executed rights certificate and full payment for the securities being purchased are received by the rights agent by the close of business on the third business day after the expiration time of the rights. Upon receipt of payment and the proper completion and due execution of the rights certificate at the designated office of the rights agent or any other office indicated in an applicable prospectus supplement, we or the transfer agent will forward, as soon as practicable, the securities purchased upon the exercise of the rights. We may determine to offer any unsubscribed offered securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of the methods, including pursuant to standby underwriting arrangements, as set forth in an applicable prospectus supplement.

DESCRIPTION OF UNITS WE MAY OFFER

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of one or more shares of common stock, shares of preferred stock, debt securities, warrants and/or rights in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and

- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Preferred Stock,” “Description of Debt Securities,” “Description of Warrants” and “Description of Rights” will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, the unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so registered, despite any notice to the contrary.

PLAN OF DISTRIBUTION

We may sell the securities being offered by us in this prospectus pursuant to underwritten public offerings, negotiated transactions, block trades, in transactions as further described below, any combination of such methods or any other methods permitted pursuant to applicable law. We may sell the securities to or through underwriters, dealers, agents or directly to one or more purchasers. We and our agents reserve the right to accept and to reject, in whole or in part, any proposed purchase of securities. A prospectus supplement or post-effective amendment, which we will file each time we effect an offering of any securities, will provide the names of any underwriters, dealers or agents, if any, involved in the sale of such securities, and any applicable fees, commissions, or discounts to which such persons shall be entitled to in connection with such offering.

We and our agents, dealers and underwriters, as applicable, may sell the securities being offered by us in this prospectus from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices;
- varying prices determined at the time of sale; or
- negotiated prices.

We may determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the underwriters' obligations, in the applicable prospectus supplement or amendment.

We may solicit directly offers to purchase securities. We may also designate agents from time to time to solicit offers to purchase securities. Any agent that we designate, who may be deemed to be an underwriter as such term is defined in the Securities Act, may then resell such securities to the public at varying prices to be determined by such agent at the time of resale.

We may engage in at the market offerings of the Company's common stock as defined in Rule 415(a)(4) under the Securities Act. An at the market offering is an offering of our common stock at other than a fixed price, and is conducted to or through a market maker. We shall name any underwriter or agent that the Company engages for an at the market offering in a post-effective amendment to the registration statement containing this prospectus. In the related prospectus supplement, we shall also describe any additional details of the Company's arrangement with such underwriter or agent, including commissions or fees paid or discounts offered by the Company, and whether such underwriter is acting as principal or agent.

If we use underwriters to sell securities, we will enter into an underwriting agreement with the underwriters at the time of the sale to them, which agreement shall be filed as an exhibit to the related prospectus supplement. Underwriters may also receive commissions from purchasers of the securities. Underwriters may also use dealers to sell securities. In such an event, the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents.

Under agreements that they may enter into with us, underwriters, dealers, agents and other persons may be entitled to (i) indemnification by the Company against certain civil liabilities, including liabilities under the Securities Act or (ii) contribution with respect to payments which they may be required to make in respect of such liabilities. Underwriters and agents may engage in transactions with, or perform services for, us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we may authorize underwriters, dealers or other persons to solicit offers by certain institutions to purchase the securities offered by us under this prospectus pursuant to contracts providing for payment and delivery on a future date or dates. The obligations of any purchaser under these contracts will be subject only to those conditions described in the applicable prospectus supplement, and the prospectus supplement will set forth the price to be paid for securities pursuant to those contracts and the commissions payable for solicitation of the contracts.

Any underwriter may engage in over-allotment, stabilizing and syndicate short covering transactions and penalty bids in accordance with Regulation M of the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions involve bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Syndicate short covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the underwriters to reclaim selling concessions from dealers when the securities originally sold by such dealers are purchased in covering transactions to cover syndicate short positions. These transactions may cause the price of the securities sold in an offering to be higher than it would otherwise be. These transactions, if commenced, may be discontinued by the underwriters at any time without notice.

Our common stock is quoted on The Nasdaq Global Market under the trading symbol "SABS" The other securities are not listed on any securities exchange or other stock market and, unless the Company states otherwise in the applicable prospectus supplement, the Company does not intend to apply for listing of the other securities on any securities exchange or other stock market. Any underwriters to whom we sell securities for public offering and sale may make a market in the securities that they purchase, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. Accordingly, the Company gives you no assurance as to the development or liquidity of any trading market for the securities.

The anticipated date of delivery of the securities offered hereby will be set forth in the applicable prospectus supplement relating to each offering.

In order to comply with certain state securities laws, if applicable, the securities may be sold in such jurisdictions only through registered or licensed brokers or dealers. In certain states, the securities may not be sold unless the securities have been registered or qualified for sale in such state or an exemption from regulation or qualification is available and is complied with. Sales of securities must also be made by the Company in compliance with all other applicable state securities laws and regulations.

We shall pay all expenses of the registration of the securities.

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 includes 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.

LEGAL MATTERS

If and when the securities being registered hereunder are issued, the validity of such issuance will be passed upon for the Company by Dentons US LLP, New York, New York.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and periodic reports, proxy statements and other information with the SEC. You may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available to the public from the SEC's Website at www.sec.gov. We make available free of charge its annual, quarterly and current reports, proxy statements and other information upon request. To request such materials, please contact the Corporate Secretary 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. Exhibits to the documents will not be sent, unless those exhibits have specifically been incorporated by reference in this prospectus.

We maintain our website at <https://www.sab.bio>. Our website and the information contained therein or connected thereto are not incorporated into this Registration Statement.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act relating to the securities we are offering by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules to the registration statement. Please refer to the registration statement and its exhibits and schedules for further information with respect to the Company and our securities. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, we refer you to the copy of that contract or document filed as an exhibit to, or incorporated by reference into, the registration statement. You may read and obtain a copy of the registration statement and its exhibits and schedules from the SEC, as described in the preceding paragraph.

INFORMATION INCORPORATED 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 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](#); and
- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with SEC on [April 14, 2023](#); and
- 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](#), and [April 28, 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.

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

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in the applicable prospectus supplement or in any other subsequently filed document which also is or is deemed to be incorporated by reference modifies or supersedes the 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 may request a copy of the filings incorporated herein by reference, including exhibits to such documents that are specifically incorporated by reference, at no cost, by writing or calling 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

Statements contained in this prospectus as to the contents of any contract or other documents are not necessarily complete, and in each instance investors are referred to the copy of the contract or other document filed as an exhibit to the registration statement or to a document incorporated by reference, each such statement being qualified in all respects by such reference and the exhibits and schedules thereto.

\$50,000,000



SAB Biotherapeutics, Inc.

**Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units**

PROSPECTUS

, 2023

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

The following table sets forth all expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of the securities being registered. All of such fees and expenses, except for the registration fee, are estimates:

	Amount
SEC Registration fee	\$ 5,510
Accounting fees and expenses	\$ *
Legal fees and expenses	\$ *
Miscellaneous fees and expenses	\$ *
Total	\$ 5,510

* The calculation of these fees and expenses is dependent on the number of issuances and amount of securities offered and, accordingly, cannot be estimated at this time.

The Company shall bear all expenses in connection with the issuance and distribution of the securities being offered hereby.

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;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the 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;

(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 (1)(i), (1)(ii) and (1)(iii) of this section 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, as amended (the "Exchange Act") 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 part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, 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, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) 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.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the 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 registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(j) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under section 305(b)(2) of the Act.

EXHIBIT INDEX

Exhibit Number	Description	Incorporated by Reference			
		Schedule/ Form	File No.	Exhibit	Filing Date
1.1*	Form of Underwriting Agreement.				
3.1	Amended and Restated Certificate of Incorporation.	8-K	001-39871	3.1	October 28, 2021
3.2	Amended and Restated Bylaws.	8-K	001-39871	3.2	October 28, 2021
4.1	Specimen common stock Certificate of Registrant.	S-1/A	333-258869	4.2	January 4, 2021
4.2*	Form of Specimen Certificate Representing Preferred Stock.				
4.3	Form of Indenture.				
4.4*	Form of Subordinated Debt Securities Indenture.				
4.5*	Form of Senior Debt Securities Indenture.				
4.6*	Form of Warrant.				
4.7*	Form of Warrant Agreement.				
4.8*	Form of Unit Agreement.				
5.1	Opinion of Dentons US LLP				
23.1	Consent of Dentons US LLP (included in Exhibit 5.1).				
23.2	Consent of Independent Registered Public Accounting Firm				
24.1	Powers of Attorney (incorporated by reference to the signature page hereto).				
25.1**	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of Debt Trustee (to be filed prior to any issuance of Debt Securities).				
107	Filing Fee Table				

* To be filed by amendment or incorporated by reference in connection with the offering of the securities.

** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Company has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the Sioux Falls, State of South Dakota, on this 9th day of May, 2023.

SAB BIOTHERAPEUTICS, INC.

Date: May 9, 2023

By: /s/ Eddie J. Sullivan
Name: **Eddie J. Sullivan**
Title: **Director, President, and Chief Executive Officer**

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Eddie J. Sullivan and Russell P. Beyer, and each of them, as his/her true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution, for him/her and in his/her name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement on Form S-3, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Eddie J. Sullivan</u> Eddie J. Sullivan	Director, President, and Chief Executive Officer <i>(Principal Executive Officer)</i>	May 9, 2023
<u>/s/ Russell Beyer</u> Russell P. Beyer	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	May 9, 2023
<u>/s/ Samuel J. Reich</u> Samuel J. Reich	Director and Executive Chairman	May 9, 2023
<u>/s/ David Charles Link</u> David Charles Link	Director	May 9, 2023
<u>/s/ Christine Hamilton</u> Christine Hamilton	Director	May 9, 2023
<u>/s/ William James Polvino, MD, PHD</u> William James Polvino	Director	May 9, 2023
<u>/s/ Jeffrey G. Spragens</u> Jeffrey G. Spragens	Director	May 9, 2023
<u>/s/ Scott Giberson</u> Scott Giberson	Director	May 9, 2023
<u>/s/ Erick Lucera</u> Erick Lucera	Director	May 9, 2023

SAB BIOTHERAPEUTICS, INC.

Issuer

AND

as Trustee

INDENTURE

Dated as of , 2023

Debt Securities

CROSS-REFERENCE TABLE(1)

SECTION OF TRUST INDENTURE ACT OF 1939, AS AMENDED	SECTION(S) OF INDENTURE
310(a)	7.9
310(b)	7.8
311(a)	7.13
311(b)	7.13
312(a)	5.1, 5.2(a)
312(b)	5.2(b)
312(c)	5.2(c)
313(a)	5.4
313(b)	5.4
313(c)	5.4
313(d)	5.4
314(a)	5.3, 14.12
314(c)	14.7(a)
314(e)	14.7(b)
315(a)	7.1
315(b)	7.14
315(c)	7.1
315(d)	7.1
315(e)	6.7
316(a)	6.6, 8.4
316(b)	6.4
316(c)	8.1
317(a)	6.2
317(b)	4.2
318(a)	14.9

(1) This Cross-Reference Table does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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INDENTURE

INDENTURE, dated as of _____, 2023, among SAB Biotherapeutics, Inc., a Delaware corporation (the “**Company**”), and _____, a national banking association organized under the laws of the United States, as trustee (the “**Trustee**”):

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance of debt securities (hereinafter referred to as the “**Securities**”), in an unlimited aggregate principal amount to be issued from time to time in one or more series as in this Indenture provided, as registered Securities without coupons, to be authenticated by the Trustee;

WHEREAS, to provide the terms and conditions upon which the Securities are to be authenticated, issued and delivered, the Company has duly authorized the execution of this Indenture; and

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the holders thereof, it is mutually covenanted and agreed as follows for the equal and ratable benefit of the holders of Securities:

ARTICLE I

DEFINITIONS

SECTION 1.1 DEFINITIONS OF TERMS.

The terms defined in this Section (except as in this Indenture or any Board Resolution or indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires) for all purposes of this Indenture and of any Board Resolution or indenture supplemental hereto shall have the respective meanings specified in this Section and shall include the plural as well as the singular. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939, as amended, or that are by reference in such Act defined in the Securities Act (except as herein or any Board Resolution or indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of the execution of this instrument.

“**Authenticating Agent**” means an authenticating agent with respect to all or any of the series of Securities appointed by the Trustee pursuant to Section 2.10.

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified person. For purposes of this definition, “control,” as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise. For purposes of this definition, the terms “controlling,” “controlled by” and “under common control with” have correlative meanings.

“**Authorized Officer**,” when used with respect to the Company, means the Chairman of the Board of Directors, the Chief Executive Officers, the President, the Chief Operating Officer, the Chief Financial Officer, the Treasurer, any Assistant Treasurer, the Controller, the Secretary or any Executive Vice President or Senior Vice President of the Company.

“**Bankruptcy Law**” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

“**Board of Directors**” means the Board of Directors of the Company or any duly authorized committee of such Board.

“**Board Resolution**” means a copy of one or more resolutions certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors, or such committee of the Board of Directors or officers of the Company to which authority to act on behalf of the Board of Directors has been delegated, and to be in full force and effect on the date of such certification, and to be delivered to the Trustee.

“**Business Day**” means, with respect to any series of Securities, any day other than a day on which federal or state banking institutions in the Borough of Manhattan, the City and State of New York, are authorized or obligated by law, executive order or regulation to close.

“**Code**” means the Internal Revenue Code of 1986, as amended.

“**Commission**” means the Securities and Exchange Commission.

“Company” means SAB Biotherapeutics, Inc., a corporation duly organized and existing under the laws of the State of Delaware, and, subject to the provisions of Article X, shall also include its successors and assigns.

“Company Request” and **“Company Order”** means a written request or order signed in the name of the Company by one or more Authorized Officers of the Company, and delivered to the Trustee.

“Corporate Trust Office” means the principal office of the Trustee at which, at any particular time, this Indenture shall be administered, which office at the date hereof is located at ; Attention: . With respect to presentation for transfer or exchange, conversions or principal payment, such address shall be ; Attention: , or such other address as the Trustee may designate from time to time by written notice to the Securityholders and the Company, or the principal corporate trust office of any successor Trustee (or such other address as such successor Trustee may designate from time to time by written notice to the Securityholders and the Company).

“Covenant Defeasance” shall have the meaning set forth in Section 12.3.

“Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“Default” means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

“Depository” means, with respect to Securities of any series for which the Company shall determine that such Securities will be issued as a Global Security, The Depository Trust Company, New York, New York, another clearing agency, or any successor registered as a clearing agency under the Exchange Act, or other applicable statute or regulation, which, in each case, shall be designated by the Company pursuant to either Section 2.1 or 2.11.

“Event of Default” means, with respect to Securities of a particular series, any event specified in Section 6.1, continued for the period of time, if any, therein designated.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Global Security” means, with respect to any series of Securities, a Security executed by the Company and delivered by the Trustee to the Depository or pursuant to the Depository’s instruction, all in accordance with this Indenture, which shall be registered in the name of the Depository or its nominee.

“Governmental Obligations” means securities that are (a) direct obligations of the U.S. for the payment of which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the U.S., the payment of which is unconditionally guaranteed as a full faith and credit obligation by the U.S. that, in either case, are not callable or redeemable at the option of the issuer thereof, and shall also include a depository receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any such Governmental Obligation or a specific payment of principal of or interest on any such Governmental Obligation held by such custodian for the account of the holder of such depository receipt; provided, however, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Governmental Obligation or the specific payment of principal of or interest on the Governmental Obligation evidenced by such depository receipt.

“herein,” “hereof” and **“hereunder,”** and other words of similar import, refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“Indenture” means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more Board Resolutions or one or more indentures supplemental hereto entered into in accordance with the terms hereof.

“Interest Payment Date,” when used with respect to any installment of interest on a Security of a particular series, means the date specified in such Security or in a Board Resolution or in an indenture supplemental hereto with respect to such series as the fixed date on which an installment of interest with respect to Securities of that series is due and payable.

“Legal Defeasance” shall have the meaning set forth in Section 12.2.

“Officer’s Certificate” means a certificate signed by an Authorized Officer of the Company that is delivered to the Trustee in accordance with the terms hereof. Each such certificate shall include the statements provided for in Section 14.7, if and to the extent required by the provisions thereof. An Officer’s Certificate given pursuant to Section 14.12 shall be signed by the principal executive, financial or accounting officer of the Company but need not contain the statements provided for in Section 14.7.

“Opinion of Counsel” means an opinion in writing subject to customary exceptions of legal counsel, who may be an employee of or counsel for the Company, that is delivered to the Trustee in accordance with the terms hereof. Each such opinion shall include the statements provided for in Section 14.7, if and to the extent required by the provisions thereof.

“Outstanding,” when used with reference to Securities of any series, means, subject to the provisions of Section 8.4, as of any particular time, all Securities of that series theretofore authenticated and delivered by the Trustee under this Indenture, except (a) Securities theretofore canceled by the Trustee, or delivered to the Trustee or any Paying Agent for cancellation or that have previously been canceled; (b) Securities or portions thereof for the payment or redemption of which cash or Governmental Obligations in the necessary amount shall have been irrevocably deposited in trust with the Trustee or with any Paying Agent (other than the Company) or shall have been set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent); provided, however, that if such Securities or portions of such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in Article III provided, or provision satisfactory to the Trustee shall have been made for giving such notice; and (c) Securities in lieu of or in substitution for which other Securities shall have been authenticated and delivered pursuant to the terms of Section 2.7, unless the Trustee and the Company receive proof satisfactory to them that the replaced Security is held by a protected purchaser.

“Paying Agent” shall have the meaning set forth in Section 4.2(a).

“Person” means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company or government or other entity, and includes any syndicate or group that would be deemed to be a “person” under Section 13(d)(3) of the Exchange Act.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 2.7 in lieu of a lost, destroyed or stolen Security shall be deemed to evidence the same debt as the lost, destroyed or stolen Security.

“Redemption Date,” when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

“Securities” shall have the meaning set forth in the recitals to this Indenture.

“Securities Act” means the Securities Act of 1933, as amended.

“Securityholder,” “holder of Securities,” “registered holder,” or other similar term, means the Person or Persons in whose name or names a particular Security shall be registered on the Security Register in accordance with the terms of this Indenture.

“Security Register” shall have the meaning set forth in Section 4.2(a).

“Security Registrar” shall have the meaning set forth in Section 4.2(a).

“Stated Maturity,” when used with respect to any security or any installment of principal thereof or interest thereon, means the date specified in such Security or a coupon representing such installment of interest as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

“Subsidiary” means, with respect to any Person, (i) any corporation at least a majority of whose outstanding Voting Stock shall at the time be owned, directly or indirectly, by such Person or by one or more of its Subsidiaries or by such Person and one or more of its Subsidiaries, (ii) any general partnership, joint venture or similar entity, at least a majority of whose outstanding partnership or similar interests shall at the time be owned by such Person, or by one or more of its Subsidiaries, or by such Person and one or more of its Subsidiaries and (iii) any limited partnership of which such Person or any of its Subsidiaries is a general partner.

“Trustee” means , and, subject to the provisions of Article VII, shall also include its successors and assigns, and, if at any time there is more than one Person acting in such capacity hereunder, “Trustee” shall mean each such Person. The term “Trustee” as used with respect to a particular series of the Securities shall mean the trustee with respect to that series.

“Trust Indenture Act” means the Trust Indenture Act of 1939, as amended.

“Trust Officer” means any officer of the Trustee with direct responsibility for the administration of this Indenture and also means, with respect to a particular corporate trust matter hereunder, any other officer of the Trustee to whom such matter is referred because of his or her knowledge of and familiarity with the particular subject.

“Uniform Commercial Code” means the New York Uniform Commercial Code as in effect from time to time.

“U.S.” means the United States of America.

“USA Patriot Act” shall have the meaning set forth in Section 14.13.

“Voting Stock,” as applied to stock of any Person, means shares, interests, participations or other equivalents in the equity interest (however designated) in such Person having ordinary voting power for the election of a majority of the directors (or the equivalent) of such Person, other than shares, interests, participations or other equivalents having such power only by reason of the occurrence of a contingency.

SECTION 1.2 INCORPORATION BY REFERENCE OF TRUST INDENTURE ACT.

Whenever this Indenture refers to a provision of the Trust Indenture Act, the provision is incorporated by reference in and made a part of this Indenture.

All Trust Indenture Act terms used in this Indenture that are defined by the Trust Indenture Act, defined by Trust Indenture Act reference to another statute or defined by Commission rule have the meanings assigned to them by such definitions.

ARTICLE II

ISSUE, DESCRIPTION, TERMS, EXECUTION, REGISTRATION

AND EXCHANGE OF SECURITIES

SECTION 2.1 DESIGNATION AND TERMS OF SECURITIES.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series up to the aggregate principal amount of Securities of that series from time to time authorized by or pursuant to a Board Resolution or pursuant to one or more indentures supplemental hereto. Prior to the initial issuance of Securities of any series, there shall be established in or pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental hereto:

(1) the title of the Securities of the series (which shall distinguish the Securities of that series from all other Securities);

(2) the principal amount of the Securities being offered and any limit upon the aggregate principal amount of the Securities of that series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of that series);

(3) the date or dates on which the principal of the Securities of the series is payable, any original issue discount that may apply to the Securities of that series upon their issuance, the principal amount due at maturity, and the place(s) of payment;

(4) the rate or rates at which the Securities of the series shall bear interest or the manner of calculation of such rate or rates, if any, and whether the rate(s) are fixed or variable;

(5) the date or dates from which such interest shall accrue, the Interest Payment Dates on which such interest will be payable or the manner of determination of such Interest Payment Dates, the place(s) of payment, and the record date for the determination of holders to whom interest is payable on any such Interest Payment Dates or the manner of determination of such record dates;

(6) the right, if any, to extend the interest payment periods and the duration of such extension;

(7) the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Company;

(8) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund, mandatory redemption, or analogous provisions (including payments made in cash in satisfaction of future sinking fund obligations) or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which, Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(9) the terms of the subordination of any series of subordinated debt;

(10) the form of the Securities of the series including the form of the certificate of authentication for such series;

(11) if other than minimum denominations of two thousand U.S. dollars (\$2,000) or any integral multiple of one thousand U.S. dollars (\$1,000) in excess thereof, the minimum denominations and multiples in excess thereof in which the Securities of the series shall be issuable;

(12) whether the Securities are issuable as a Global Security and, in such case, the terms and the identity of the Depositary for such series;

(13) whether the Securities will be convertible into or exchangeable for shares of common stock or other securities of the Company or any other Person or other securities and, if so, the terms and conditions upon which such Securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at the Company's option or the holders' option) conversion or exchange features, and the applicable conversion or exchange period;

(14) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.1;

(15) any additional or different Events of Default or restrictive covenants (which may but shall not be required to include, among other restrictions, restrictions on the Company's ability or the ability of the Company's Subsidiaries to: incur additional indebtedness; issue additional securities; create liens; pay dividends or make distributions in respect of their capital stock; redeem capital stock; in the case of such Subsidiaries, pay dividends, make distributions or transfer assets; make investments or other restricted payments; sell or otherwise dispose of assets; enter into sale leaseback transactions; engage in transactions with stockholders and affiliates; issue or sell stock of the Company's Subsidiaries; or effect a consolidation or merger) or financial covenants (which may include, among other financial covenants, financial covenants that require the Company and its Subsidiaries to maintain specified interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios) provided for with respect to the Securities of the series;

(16) if other than U.S. dollars, the coin or currency in which the Securities of the series are denominated (including, but not limited to, foreign currency);

(17) the terms and conditions, if any, upon which the Company shall pay amounts in addition to the stated interest, premium, if any, and principal amounts of the Securities of the series to any Securityholder that is not a "United States person" for federal tax purposes, and the terms and conditions, if any, relating to the Company's ability to redeem such Securities if the Company is required to pay such additional amounts;

(18) a discussion of any material U.S. federal income tax considerations applicable to the Securities of the series;

(19) any restrictions on transfer, sale or assignment of the Securities of the series;

(20) the terms, if any, relating to any auction or remarketing of the Securities of the series and any security for the obligations of the Company with respect to such Securities;

(21) whether the Securities of the series are secured or unsecured, and if the Securities are secured, the terms of the secured Securities;

(22) information describing any book-entry features;

(23) the identity of any guarantors and the terms of the guarantees; and

(24) any and all other terms with respect to the series (which terms shall not be inconsistent with the terms of this Indenture, as amended by any Board Resolution or supplemental indenture, but which may modify or delete any provisions of this Indenture insofar as it applies to such series), including any terms which may be required by or advisable under the laws of the U.S. or regulations thereunder or advisable (as determined by the Company) in connection with the marketing of Securities of that series.

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to any such Board Resolution or in any indentures supplemental hereto.

If any of the terms of the series are established by action taken pursuant to a Board Resolution of the Company, a copy of an appropriate record of such action shall be certified by the secretary or an assistant secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officer's Certificate of the Company setting forth the terms of the series.

Securities of any particular series may be issued at various times, with different dates on which the principal or any installment of principal is payable, with different rates of interest, if any, or different methods by which rates of interest may be determined, with different dates on which such interest may be payable and with different redemption dates. A series may be reopened for issuances of additional Securities of such series or to establish additional terms of such Securities.

SECTION 2.2 FORM OF SECURITIES AND TRUSTEE'S CERTIFICATE.

The Securities of any series and the Trustee's certificate of authentication to be borne by such Securities shall be substantially of the tenor and purport as set forth in one or more indentures supplemental hereto or as provided in a Board Resolution, and set forth in an Officer's Certificate, and they may have such letters, numbers or other marks of identification or designation and such legends or endorsements printed, lithographed or engraved thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange on which Securities of that series may be listed, or to conform to usage.

SECTION 2.3 DENOMINATIONS; PROVISIONS FOR PAYMENT.

The Securities shall be issuable as registered Securities and in the minimum denomination of two thousand U.S. dollars (\$2,000) or any integral multiple of one thousand U.S. dollars (\$1,000) in excess thereof, subject to Section 2.1(11). The Securities of a particular series shall bear interest payable on the dates and at the rate specified with respect to that series. The principal of and the interest on the Securities of any series, as well as any premium thereon, shall be payable in the coin or currency of the U.S. that at the time is legal tender for public and private debt, at the office or agency of the Company maintained for that purpose in the United States, which shall initially be an office or agency of the Trustee. Each Security shall be dated the date of its authentication. Interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months. Presentment and surrender of the Securities is required for final payment thereon.

The interest installment on any Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date for Securities of that series shall be paid to the Person in whose name said Security (or one or more Predecessor Securities) is registered at the close of business on the regular record date for such interest installment. In the event that any Security of a particular series or portion thereof is called for redemption and the redemption date is subsequent to a regular record date with respect to any Interest Payment Date and prior to such Interest Payment Date, interest on such Security will be paid upon presentation and surrender of such Security as provided in Section 3.3.

Any interest on any Security that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date for Securities of the same series (herein called "**Defaulted Interest**") shall forthwith cease to be payable to the registered holder on the relevant regular record date by virtue of having been such holder; and such Defaulted Interest shall be paid by the Company, at its election, as provided in clause (1) or clause (2) below:

(1) The Company may make payment of any Defaulted Interest on Securities to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered at the close of business on a special record date for the payment of such Defaulted Interest, which shall be fixed in the following manner: the Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each such Security and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a special record date for the payment of such Defaulted Interest which shall not be more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such special record date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the special record date therefor to be mailed, first class postage prepaid (or, in the case of Securities held in book-entry form, by electronic transmission), to each Securityholder at his or her address as it appears in the Security Register (as hereinafter defined), not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered on such special record date.

(2) The Company may make payment of any Defaulted Interest on any Securities in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Unless otherwise set forth in a Board Resolution or one or more indentures supplemental hereto establishing the terms of any series of Securities pursuant to Section 2.1 hereof, the term "**regular record date**" as used in this Section with respect to a series of Securities and any Interest Payment Date for such series shall mean either the fifteenth day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.1 hereof shall occur, if such Interest Payment Date is the first day of a month, or the last day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.1 hereof shall occur, if such Interest Payment Date is the fifteenth day of a month, whether or not such date is a Business Day.

Subject to the foregoing provisions of this Section and Sections 2.5 and 2.11, each Security of a series delivered under this Indenture upon transfer of or in exchange for or in lieu of any other Security of such series shall carry the rights to interest accrued and unpaid, and to accrue, that were carried by such other Security.

SECTION 2.4 EXECUTION AND AUTHENTICATION.

The Securities shall be signed on behalf of the Company by an Authorized Officer and, to the extent necessary, under its corporate seal. Signatures may be in the form of a manual or facsimile signature.

The Company may use the facsimile signature of any Person who shall have been an Authorized Officer thereof, notwithstanding the fact that at the time the Securities shall be authenticated and delivered or disposed of such Person shall have ceased to be such an officer of the Company. To the extent a Company seal is necessary, the Company seal may be in the form of a facsimile of such seal and may be impressed, affixed, imprinted or otherwise reproduced on the Securities. The Securities may contain such notations, legends or endorsements required by law, stock exchange rule or usage. Each Security shall be dated the date of its authentication by the Trustee.

A Security shall not be valid until authenticated manually by an authorized signatory of the Trustee. Such signature shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the holder is entitled to the benefits of this Indenture. At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities, signed by an Authorized Officer, and the Trustee in accordance with such Company Order shall authenticate and deliver such Securities.

In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall receive, and (subject to Section 7.1) shall be fully protected in conclusively relying upon, an Opinion of Counsel stating that the form and terms thereof have been established in conformity with the provisions of this Indenture.

The Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner that is not reasonably acceptable to the Trustee.

SECTION 2.5 REGISTRATION OF TRANSFER AND EXCHANGE.

(a) Securities of any series may be exchanged upon presentation thereof at the office of the Security Registrar, for other Securities of such series of authorized denominations, and for a like aggregate principal amount, upon payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, all as provided in this Section. In respect of any Securities so surrendered for exchange, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in exchange therefor the Security or Securities of the same series that the Securityholder making the exchange shall be entitled to receive, bearing numbers not contemporaneously outstanding.

(b) Upon surrender for transfer of any Security at the office of the Security Registrar, the Company shall execute, the Trustee shall authenticate and the Security Registrar shall deliver in the name of the transferee or transferees a new Security or Securities of the same series as the Security presented for a like aggregate principal amount.

All Securities presented or surrendered for exchange or registration of transfer, as provided in this Section, shall be accompanied (if so required by the Company or the Security Registrar) by a written instrument or instruments of transfer, in form satisfactory to the Company or the Security Registrar, duly executed by the registered holder or by such holder's duly authorized attorney in writing.

(c) Except as provided pursuant to Section 2.1 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, no service charge shall be made for any exchange or registration of transfer of Securities, or issue of new Securities in case of partial repurchase or redemption of any series, but the Company and the Trustee may require payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, other than exchanges pursuant to Section 2.6, Section 3.3(b) and Section 9.4 not involving any transfer.

(d) The Company shall not be required (i) to issue, exchange or register the transfer of any Securities during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of less than all the Outstanding Securities of the same series and ending at the close of business on the day of such mailing, nor (ii) to register the transfer of or exchange any Securities of any series or portion thereof called for redemption, other than the unredeemed portion of any such Securities being redeemed in part.

(e) Successive registrations and registrations of transfers and exchanges as aforesaid may be made from time to time as desired, and each such registration shall be noted on the register for the Securities.

(f) The Security Registrar shall provide to the Trustee such information as the Trustee may reasonably require in connection with the delivery by such Security Registrar of Securities upon transfer or exchange of Securities.

(g) The provisions of this Section 2.5 are, with respect to any Global Security, subject to Section 2.11 hereof.

(h) The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance with any restrictions on transfer imposed under this Indenture or under applicable law with respect to any transfer of any interest in any Security (including any transfers between or among Depository participants or beneficial owners of interests in any Global Security) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by the terms of, this Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof.

(i) Neither the Trustee nor any agent shall have any responsibility or liability for any actions taken or not taken by the Depository.

SECTION 2.6 TEMPORARY SECURITIES.

Pending the preparation of definitive Securities of any series, the Company may execute, and the Trustee shall authenticate and deliver, temporary Securities (printed, lithographed or typewritten) of any authorized denomination. Such temporary Securities shall be substantially in the form of the definitive Securities in lieu of which they are issued, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every temporary Security of any series shall be executed by the Company and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without unnecessary delay the Company will execute and will furnish definitive Securities of such series and thereupon any or all temporary Securities of such series may be surrendered in exchange therefor (without charge to the holders), at the office of the Security Registrar, and the Trustee shall authenticate and the Security Registrar shall deliver in exchange for such temporary Securities an equal aggregate principal amount of definitive Securities of such series, unless the Company advises the Trustee to the effect that definitive Securities need not be executed and furnished until further notice from the Company. Until so exchanged, the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series authenticated and delivered hereunder.

SECTION 2.7 MUTILATED, DESTROYED, LOST OR STOLEN SECURITIES.

In case any temporary or definitive Security shall become mutilated or be destroyed, lost or stolen, the Company (subject to the next succeeding sentence) shall execute, and upon a Company Request, the Trustee (subject as aforesaid) shall authenticate and deliver, a new Security of the same series, bearing a number not contemporaneously outstanding, in exchange and substitution for the mutilated Security, or in lieu of and in substitution for the Security so destroyed, lost or stolen. In every case, the requirements of Section 8-405 of the Uniform Commercial Code shall be met and the applicant for a substituted Security shall furnish to the Company and the Trustee such security or indemnity as may be required by them to save each of them harmless, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company and the Trustee evidence to their satisfaction of the destruction, loss or theft of the applicant's Security and of the ownership thereof. The Trustee may authenticate any such substituted Security and deliver the same upon the delivery of a Company Order. Upon the issuance of any substituted Security, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

In case any Security that has matured or is about to mature shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of the same (without surrender thereof except in the case of a mutilated Security) if the applicant for such payment shall furnish to the Company and the Trustee such security or indemnity as they may require to save them harmless, and, in case of destruction, loss or theft, evidence to the satisfaction of the Company and the Trustee of the destruction, loss or theft of such Security and of the ownership thereof.

Every replacement Security issued pursuant to the provisions of this Section shall constitute an additional contractual obligation of the Company whether or not the mutilated, destroyed, lost or stolen Security shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of the same series duly issued hereunder. All Securities shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities, and shall preclude (to the extent lawful) any and all other rights or remedies, notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

SECTION 2.8 CANCELLATION.

All Securities surrendered for the purpose of payment, redemption, exchange or registration of transfer shall, if surrendered to the Company or any Paying Agent, be delivered to the Trustee for cancellation, or, if surrendered to the Trustee, shall be cancelled by it, and no Securities shall be issued in lieu thereof except as expressly required or permitted by any of the provisions of this Indenture. On the delivery of a Company Order at the time of such surrender, the Trustee shall cancel Securities held by the Trustee in accordance with its standard procedures and applicable law and provide confirmation to the Company of such cancellation if requested by the Company. In the absence of such request, the Trustee may dispose of canceled Securities in accordance with its standard procedures and deliver evidence of cancellation to the Company. If the Company shall otherwise acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

SECTION 2.9 BENEFITS OF INDENTURE.

Nothing in this Indenture or in the Securities, express or implied, shall give or be construed to give to any Person, other than the parties hereto and the holders of the Securities any legal or equitable right, remedy or claim under or in respect of this Indenture, or under any covenant, condition or provision herein contained; all such covenants, conditions and provisions being for the sole benefit of the parties hereto and of the holders of the Securities.

SECTION 2.10 AUTHENTICATING AGENT.

So long as any of the Securities of any series remain Outstanding there may be an Authenticating Agent for any or all such series of Securities which the Trustee shall have the right to appoint. Said Authenticating Agent shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, transfer or partial redemption thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. All references in this Indenture to the authentication of Securities by the Trustee shall be deemed to include authentication by an Authenticating Agent for such series. Each Authenticating Agent shall be acceptable to the Company and shall be a corporation that has a combined capital and surplus, as most recently reported or determined by it, sufficient under the laws of any jurisdiction under which it is organized or in which it is doing business to conduct a trust business, and that is otherwise authorized under such laws to conduct such business and is subject to supervision or examination by federal or state authorities. If at any time any Authenticating Agent shall cease to be eligible in accordance with these provisions, it shall resign immediately.

Any Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time (and upon a Company Request shall) terminate the agency of any Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon resignation, termination or cessation of eligibility of any Authenticating Agent, the Trustee may appoint an eligible successor Authenticating Agent acceptable to the Company. Any successor Authenticating Agent, upon acceptance of its appointment hereunder, shall become vested with all the rights, powers and duties of its predecessor hereunder as if originally named as an Authenticating Agent pursuant hereto.

SECTION 2.11 GLOBAL SECURITIES.

(a) If the Company shall establish pursuant to Section 2.1 that the Securities of a particular series are to be issued as a Global Security, then the Company shall execute and the Trustee shall, in accordance with Section 2.4, authenticate and deliver, a Global Security that (i) shall represent, and shall be denominated in an amount equal to the aggregate principal amount of, all of the Outstanding Securities of such series, (ii) shall be registered in the name of the Depository or its nominee, (iii) shall be delivered by the Trustee to the Depository or pursuant to the Depository's instruction and (iv) shall bear a legend substantially to the following effect: "Except as otherwise provided in Section 2.11 of this Indenture, this Security may be transferred, in whole but not in part, only to another nominee of the Depository or to a successor Depository or to a nominee of such successor Depository."

(b) Notwithstanding the provisions of Section 2.5, the Global Security of a series may be transferred, in whole but not in part and in the manner provided in Section 2.5, only to another nominee of the Depository for such series, or to a successor Depository for such series selected or approved by the Company or to a nominee of such successor Depository. Nothing in this Section 2.11(b) shall prohibit or render ineffective any transfer of a beneficial interest in a Global Security effected in accordance with the other provisions of this Indenture.

(c) If at any time the Depository for a series of the Securities notifies the Company that it is unwilling or unable to continue as Depository for such series or if at any time the Depository for such series shall no longer be registered or in good standing under the Exchange Act, or other applicable statute or regulation, and a successor Depository for such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such condition, as the case may be, or if an Event of Default has occurred and is continuing and the Company has received a request from the Depository, this Section 2.11 shall no longer be applicable to the Securities of such series and the Company will execute, and subject to Section 2.4, the Trustee will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. In addition, the Company may at any time determine that the Securities of any series shall no longer be represented by a Global Security and that the provisions of this Section 2.11 shall no longer apply to the Securities of such series. In such event the Company will execute and, subject to Section 2.4, the Trustee, upon receipt of an Officer's Certificate evidencing such determination by the Company, will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. Upon the exchange of the Global Security for such Securities in definitive registered form without coupons, in authorized denominations, the Global Security shall be canceled by the Trustee. Such Securities in definitive registered form issued in exchange for the Global Security pursuant to this Section 2.11(c) shall be registered in such names and in such authorized denominations as the Depository, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to the Persons in whose names such Securities are so registered.

SECTION 2.12 CUSIP AND ISIN NUMBERS.

The Company, in issuing the Securities, shall use CUSIP and ISIN numbers for such Securities (if then generally in use). The Trustee shall use CUSIP and ISIN numbers in notices of redemption as a convenience to holders; provided, however, that neither the Company nor the Trustee shall have any responsibility for any defect in the CUSIP or ISIN number that appears on any Security, check, advice of payment or redemption notice, and any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company shall promptly notify the Trustee in writing in the event of any change in the CUSIP or ISIN numbers.

ARTICLE III

REDEMPTION OF SECURITIES AND SINKING FUND PROVISIONS

SECTION 3.1 REDEMPTION.

The Company may redeem the Securities of any series issued hereunder on and after the dates and in accordance with the terms established for such series pursuant to Section 2.1 hereof. The provisions of this Article III may be modified, amended or replaced, in part or in their entirety, with Securities of any series, by an Officer's Certificate pursuant to a Board Resolution or one or more indentures supplemental hereto, in each case in accordance with Section 2.1 hereof.

SECTION 3.2 NOTICE OF REDEMPTION.

(a) In case the Company shall desire to exercise such right to redeem all or, as the case may be, a portion of the Securities of any series in accordance with any right the Company reserved for itself to do so pursuant to Section 2.1 hereof, the Company shall, or shall cause the Trustee to, give notice of such redemption to holders of the Securities of such series to be redeemed by mailing, first class postage prepaid (or, in the case of Securities held in book-entry form, by electronic transmission), a notice of such redemption not less than 30 days and not more than 60 days (except in accordance with Articles XI and XII) before the date fixed for redemption of that series to such holders at their last addresses as they shall appear upon the Security Register, unless a shorter period is specified in the Securities to be redeemed. Any notice that is mailed in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the registered holder receives the notice. In any case, failure duly to give such notice to the holder of any Security of any series designated for redemption in whole or in part, or any defect in the notice, shall not affect the validity of the proceedings for the redemption of any other Securities of such series or any other series. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with any such restriction.

Each such notice of redemption shall specify the date fixed for redemption and the redemption price at which Securities of that series are to be redeemed, and shall state that payment of the redemption price of such Securities to be redeemed will be made at the office or agency of the Paying Agent or as otherwise established in a Board Resolution or an indenture supplemental hereto, upon presentation and surrender of such Securities, that interest accrued to the date fixed for redemption will be paid as specified in said notice, that from and after said date interest will cease to accrue and that the redemption is from a sinking fund, if such is the case. If less than all the Securities of a series are to be redeemed, the notice to the holders of Securities of that series to be redeemed in part shall specify the particular Securities to be so redeemed.

In case any Security is to be redeemed in part only, the notice that relates to such Security shall state the portion of the principal amount thereof to be redeemed, and shall state that on and after the redemption date, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

(b) If less than all the Securities of a series are to be redeemed, the Company shall give the Trustee at least 45 days' notice (unless a shorter notice shall be satisfactory to the Trustee) in advance of the date fixed for redemption as to the aggregate principal amount of Securities of the series to be redeemed, and thereupon the Trustee shall select, (i) if the Securities are in the form of Global Securities, in accordance with the procedures of the Depository, or (ii) if the Securities are not in the form of Global Securities, by lot, a portion or portions (equal to one thousand U.S. dollars (\$1,000) or any integral multiple thereof) of the principal amount of such Securities of a denomination larger than \$2,000, the Securities to be redeemed and shall thereafter promptly notify the Company in writing of the numbers of the Securities to be redeemed, in whole or in part. The Company may, if and whenever it shall so elect, by delivery of instructions signed on its behalf by an Authorized Officer, instruct the Trustee or any Paying Agent to call all or any part of the Securities of a particular series for redemption and to give notice of redemption in the manner set forth in this Section, such notice to be in the name of the Company or its own name as the Trustee or such Paying Agent may deem advisable. In any case in which notice of redemption is to be given by the Trustee or any such Paying Agent, the Company shall deliver or cause to be delivered to, or permit to remain with, the Trustee or such Paying Agent, as the case may be, such Security Register, transfer books or other records, or suitable copies or extracts therefrom, sufficient to enable the Trustee or such Paying Agent to give any notice by mail that may be required under the provisions of this Section.

SECTION 3.3 PAYMENT UPON REDEMPTION.

(a) If the giving of notice of redemption shall have been completed as above provided, the Securities or portions of Securities of the series to be redeemed specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption and interest on such Securities or portions of Securities shall cease to accrue on and after the date fixed for redemption, unless the Company shall default in the payment of such redemption price and accrued interest with respect to any such Security or portion thereof. On presentation and surrender of such Securities on or after the date fixed for redemption at the place of payment specified in the notice, said Securities shall be paid and redeemed at the applicable redemption price for such series, together with interest accrued thereon to the date fixed for redemption (but if the date fixed for redemption is an interest payment date, the interest installment payable on such date shall be payable to the registered holder at the close of business on the applicable record date pursuant to Section 2.3).

(b) Upon presentation of any Security of such series that is to be redeemed in part only, the Company shall execute and the Trustee shall authenticate and the office or agency where the Security is presented shall deliver to the holder thereof, at the expense of the Company, a new Security of the same series of authorized denominations in principal amount equal to the unredeemed portion of the Security so presented.

SECTION 3.4 SINKING FUND.

If Securities of a series provide for a sinking fund as contemplated by Section 2.1, the provisions of this Section 3.4 and Sections 3.5 and 3.6 shall be applicable to any sinking fund for the retirement of Securities of a series, except as otherwise specified as contemplated by Section 2.1 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a “**mandatory sinking fund payment**,” and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an “**optional sinking fund payment**.” If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 3.5. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

SECTION 3.5 SATISFACTION OF SINKING FUND PAYMENTS WITH SECURITIES.

The Company (i) may deliver Outstanding Securities of a series and (ii) may apply as a credit Securities of a series that have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series, provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the redemption price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

SECTION 3.6 REDEMPTION OF SECURITIES FOR SINKING FUND.

Not less than 45 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer’s Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of the series, the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to Section 3.5 and the basis for such credit and will, together with such Officer’s Certificate, deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 3.2 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 3.2. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 3.3.

ARTICLE IV

COVENANTS

SECTION 4.1 PAYMENT OF PRINCIPAL, PREMIUM AND INTEREST.

The Company will duly and punctually pay or cause to be paid the principal of (and premium, if any) and interest on the Securities of that series at the time and place and in the manner provided herein and established with respect to such Securities. Payments of principal on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check drawn on and mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account (such a wire transfer to be made only to a Securityholder of an aggregate principal amount of Securities of the applicable series in excess of U.S. \$2,000,000 and only if such Securityholder shall have furnished wire instructions to the Trustee no later than 15 days prior to the relevant payment date). Payments of interest on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account (such a wire transfer to be made only to a Securityholder of an aggregate principal amount of Securities of the applicable series in excess of U.S. \$2,000,000 and only if such Securityholder shall have furnished wire instructions in writing to the Security Registrar and the Trustee no later than 15 days prior to the relevant payment date).

SECTION 4.2 PAYING AGENT AND SECURITY REGISTRAR.

(a) So long as any series of the Securities remain Outstanding, the Company shall maintain an office or agency where Securities may be presented for registration of transfer or for exchange (“**Security Registrar**”), an office or agency where Securities may be presented for payment (“**Paying Agent**”) and an office or agency where notices to or upon the Company in respect of the Securities and this Indenture may be served. The Security Registrar shall keep a register for the recordation of, and shall record, the names and addresses of holders of the Securities, the Securities held by each holder and the transfer and exchange of Securities (the “**Security Register**”). The entries in the Security Register shall be conclusive, and the parties may treat each Person whose name is recorded in the Security Register pursuant to the terms hereof as a holder hereunder for all purposes of this Indenture. The Company may have one or more co-Security Registrars and one or more additional Paying Agents.

The Company hereby initially designates the Trustee as Paying Agent and Security Registrar, and the Corporate Trust Office shall be considered as one such office or agency of the Company for each of the aforesaid purposes, such designation to continue with respect to such office or agency until the Company shall, by written notice signed by an Authorized Officer and delivered to the Trustee, designate some other office or agency for such purposes or any of them.

(b) The Company shall enter into an appropriate agency agreement with any Security Registrar, Paying Agent, or co-registrar not a party to this Indenture, which shall incorporate the terms of the Trust Indenture Act. The agreement shall implement the provisions of this Indenture that relate to such agent. The Company shall notify the Trustee in writing of the name and address of any such agent. If the Company fails to maintain a Security Registrar or Paying Agent, the Trustee shall act as such and shall be entitled to appropriate compensation therefor. The Company and any of its Subsidiaries may act as Paying Agent, Security Registrar or co-registrar.

(c) If the Company shall appoint one or more Paying Agents for all or any series of the Securities, other than the Trustee, the Company will cause each such Paying Agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section:

(1) that it will hold all sums held by it as such agent for the payment of the principal of (and premium, if any) or interest on the Securities of that series (whether such sums have been paid to it by the Company or by any other obligor of such Securities) in trust for the benefit of the Persons entitled thereto;

(2) that it will give the Trustee notice of any failure by the Company (or by any other obligor of such Securities) to make any payment of the principal of (and premium, if any) or interest on the Securities of that series when the same shall be due and payable;

(3) that it will, at any time during the continuance of any failure referred to in the preceding paragraph (a)(2) above, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent; and

(4) that it will perform all other duties of Paying Agent as set forth in this Indenture.

(d) If the Company shall act as its own Paying Agent with respect to any series of the Securities, it will on or before each due date of the principal of (and premium, if any) or interest on Securities of that series, set aside, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay such principal (and premium, if any) or interest so becoming due on Securities of that series until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of such action, or any failure (by it or any other obligor on such Securities) to take such action. Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, prior to each due date of the principal of (and premium, if any) or interest on any Securities of that series, deposit with the Paying Agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of this action or failure so to act.

(e) Notwithstanding anything in this Section to the contrary, the Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same terms and conditions as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by the Company or any Paying Agent to the Trustee, the Company or such Paying Agent shall be released from all further liability with respect to such money.

SECTION 4.3 APPOINTMENT TO FILL VACANCY IN OFFICE OF TRUSTEE.

The Company, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 7.10, a Trustee, so that there shall at all times be a Trustee hereunder.

SECTION 4.4 COMPLIANCE WITH CONSOLIDATION PROVISIONS.

The Company will not, while any of the Securities remain Outstanding, consolidate with or merge into any other Person, in either case where the Company is not the survivor of such transaction, or sell or convey all or substantially all of its property to any other Person unless the provisions of Article X hereof are complied with.

ARTICLE V

SECURITYHOLDERS' LISTS AND REPORTS BY

THE COMPANY AND THE TRUSTEE

SECTION 5.1 COMPANY TO FURNISH TRUSTEE NAMES AND ADDRESSES OF SECURITYHOLDERS.

The Company will furnish or cause to be furnished to the Trustee (a) on each regular record date (as defined in Section 2.3) a list, in such form as the Trustee may reasonably require, of the names and addresses of the holders of each series of Securities as of such regular record date, provided that the Company shall not be obligated to furnish or cause to furnish such list at any time that the list shall not differ in any respect from the most recent list furnished to the Trustee by the Company and (b) at such other times as the Trustee may request in writing within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished; provided, however, that, in either case, no such list need be furnished for any series for which the Trustee shall be the Security Registrar.

SECTION 5.2 PRESERVATION OF INFORMATION; COMMUNICATIONS WITH SECURITYHOLDERS.

(a) The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of the Securityholders of each series of Securities and shall otherwise comply with Section 312(a) of the Trust Indenture Act. If the Trustee is not the Security Registrar, the Company shall furnish to the Trustee at least ten (10) days before each interest payment date with respect to any series of Securities and at such other times as the Trustee may request in writing a list, in such form and as of such date as the Trustee may reasonably require, of the names and addresses of the Securityholders of such series of Securities, which list may be conclusively relied upon by the Trustee.

(b) Securityholders of any series may communicate pursuant to Section 312(b) of the Trust Indenture Act with other Securityholders of that series or any other series with respect to their rights under this Indenture or the Securities of that series or any other series.

(c) The Company, the Trustee, the Security Registrar and any other Person shall have the protection of Section 312(c) of the Trust Indenture Act.

SECTION 5.3 REPORTS BY THE COMPANY.

(a) So long as any Security is Outstanding, the Company shall furnish a copy to the Trustee, within 15 days after the Company files the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) that the Company files with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; provided, however, the Company shall not be required to deliver to the Trustee any materials for which the Company has sought and received confidential treatment by the Commission; and provided further, so long as such filings by the Company are available on the Commission's Electronic Data Gathering, Analysis and Retrieval System (EDGAR), such filings shall be deemed to have been furnished to the Trustee for purposes of this Section 5.3 without any further action required by the Company. The Trustee shall have no obligation whatsoever to determine whether or not such filings have been made.

(b) Delivery of such reports, information and documents to the Trustee shall be for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of the covenants contained in this Indenture (as to which the Trustee is entitled to conclusively rely upon an Officer's Certificate).

SECTION 5.4 REPORTS BY THE TRUSTEE.

(a) The Trustee shall transmit to the Securityholders such reports concerning the Trustee and its actions under this Indenture as may be required pursuant to the Trust Indenture Act at the time and in the manner provided pursuant thereto. If required by Section 313(a) of the Trust Indenture Act, the Trustee shall, within 60 days after each May 15 following the date of this Indenture, deliver to holders a brief report, dated as of such May 15, which complies with the provisions of such Section 313(a).

(b) The Trustee shall comply with Section 313(b) and 313(c) of the Trust Indenture Act.

(c) A copy of each such report shall, at the time of such transmission to Securityholders, be filed by the Trustee with the Company, with each securities exchange upon which any Securities are listed (if so listed) and also with the Commission. The Company agrees to notify the Trustee when any Securities become listed on any securities exchange.

ARTICLE VI

REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS

ON EVENT OF DEFAULT

SECTION 6.1 EVENTS OF DEFAULT.

(a) Whenever used herein with respect to Securities of a particular series, unless otherwise specified in a Board Resolution or in an indenture supplemental hereto, “**Event of Default**” means any one or more of the following events that has occurred and is continuing:

(1) the Company defaults in the payment of any installment of interest upon any of the Securities of that series, as and when the same shall become due and payable, and such default continues for a period of 30 days; provided, however, that a valid extension of an interest payment period by the Company in accordance with the terms of any Board Resolution or indenture supplemental hereto shall not constitute a default in the payment of interest for this purpose;

(2) the Company defaults in the payment of the principal of (or premium, if any, on) any of the Securities of that series as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to that series; provided, however, that a valid extension of the maturity of such Securities in accordance with the terms of any Board Resolution or indenture supplemental hereto shall not constitute a default in the payment of principal or premium, if any;

(3) the Company defaults in the performance or breach of its covenants or agreements with respect to that series contained in this Indenture or otherwise established with respect to that series of Securities pursuant to Section 2.1 hereof (other than a covenant or agreement that has been expressly included in this Indenture solely for the benefit of one or more series of Securities other than such series) for a period of 90 consecutive days after the date on which written notice of such failure, requiring the same to be remedied and stating that such notice is a “**Notice of Default**” hereunder, shall have been given to the Company by the Trustee, by registered or certified mail, or to the Company and the Trustee by the holders of at least 25% in principal amount of the Securities of that series at the time Outstanding;

(4) the Company pursuant to or within the meaning of any Bankruptcy Law (i) commences a voluntary case, (ii) consents to the entry of an order for relief against it in an involuntary case, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property or (iv) makes a general assignment for the benefit of its creditors;

(5) a court of competent jurisdiction enters an order under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company for all or substantially all of its property or (iii) orders the liquidation of the Company, and the order or decree remains unstayed and in effect for 60 consecutive days; or

(6) certain other specified events, as may be provided for in a Board Resolution or in a supplemental indenture.

(b) In each and every such case (other than an Event of Default specified in clause (4) or clause (5) above), unless the principal of all the Securities of that series shall have already become due and payable, either the Trustee or the holders of not less than 25% in aggregate principal amount of the Securities of that series then Outstanding hereunder, by notice in writing to the Company (and to the Trustee if given by such Securityholders), may, and the Trustee at the request of the holders of not less than 25% in aggregate principal amount of the Securities of that series then outstanding hereunder shall, declare the principal of (and premium, if any, on) and accrued and unpaid interest on all the Securities of that series to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable. If an Event of Default specified in clause (4) or clause (5) above occurs, the principal of and accrued and unpaid interest on all the Securities of that series shall automatically be immediately due and payable without any declaration or other act on the part of the Trustee or the holders of the Securities.

(c) At any time after the principal of (and premium, if any, on) and accrued and unpaid interest on the Securities of that series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the holders of a majority in aggregate principal amount of the Securities of that series then Outstanding hereunder, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if: (i) the Company has paid or deposited with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of that series and the principal of (and premium, if any, on) any and all Securities of that series that shall have become due otherwise than by acceleration (with interest upon such principal and premium, if any, and, to the extent that such payment is enforceable under applicable law, upon overdue installments of interest, at the rate per annum expressed in the Securities of that series to the date of such payment or deposit) and the amount payable to the Trustee under Section 7.6, and (ii) any and all Events of Default under this Indenture with respect to such series, other than the nonpayment of principal of (and premium, if any, on) and accrued and unpaid interest on Securities of that series that shall not have become due by their terms, shall have been remedied or waived as provided in Section 6.6.

No such rescission and annulment shall extend to or shall affect any subsequent default or impair any right consequent thereon.

(d) In case the Trustee shall have proceeded to enforce any right with respect to Securities of that series under this Indenture and such proceedings shall have been discontinued or abandoned because of such rescission or annulment or for any other reason or shall have been determined adversely to the Trustee, then and in every such case, subject to any determination in such proceedings, the Company and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Company and the Trustee shall continue as though no such proceedings had been taken.

SECTION 6.2

COLLECTION OF INDEBTEDNESS AND SUITS FOR ENFORCEMENT BY TRUSTEE.

(a) The Company covenants that (i) in case it shall default in the payment of any installment of interest on any of the Securities of a series, and such default shall have continued for a period of 30 days, or (ii) in case it shall default in the payment of the principal of (or premium, if any, on) any of the Securities of a series when the same shall have become due and payable, whether upon maturity of the Securities of a series or upon redemption or upon declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to that series as and when the same shall have become due and payable, then, upon demand of the Trustee, the Company will pay to the Trustee, for the benefit of the holders of the Securities of that series, the whole amount that then shall have become due and payable on all such Securities for principal (and premium, if any) or interest, or both, as the case may be, with interest upon the overdue principal (and premium, if any) and (to the extent that payment of such interest is enforceable under applicable law) upon overdue installments of interest at the rate per annum expressed in the Securities of that series; and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, and the amount payable to the Trustee under Section 7.6.

(b) If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceeding at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company or other obligor upon the Securities of that series and collect the moneys adjudged or decreed to be payable in the manner provided by law or equity out of the property of the Company or other obligor upon the Securities of that series, wherever situated.

(c) In case of any receivership, insolvency, liquidation, bankruptcy, reorganization, readjustment, arrangement, composition or judicial proceedings affecting the Company, or its creditors or property, the Trustee shall have power to intervene in such proceedings and take any action therein that may be permitted by the court and shall (except as may be otherwise provided by law) be entitled to file such proofs of claim and other papers and documents as may be necessary or advisable in order to have the claims of the Trustee and of the holders of Securities of such series allowed for the entire amount due and payable by the Company under this Indenture at the date of institution of such proceedings and for any additional amount that may become due and payable by the Company after such date, and to collect and receive any moneys or other property payable or deliverable on any such claim, and to distribute the same after the deduction of the amount payable to the Trustee under Section 7.6; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized by each of the holders of Securities of such series to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to such Securityholders, to pay to the Trustee any amount due it under Section 7.6.

(d) All rights of action and of asserting claims under this Indenture, or under any of the terms established with respect to Securities of that series, may be enforced by the Trustee without the possession of any of such Securities, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for payment to the Trustee of any amounts due under Section 7.6, be for the ratable benefit of the holders of the Securities of such series.

In case of an Event of Default hereunder, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any of such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in this Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of that series or the rights of any holder thereof or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding.

SECTION 6.3 APPLICATION OF MONEYS COLLECTED.

Any moneys collected by the Trustee pursuant to this Article VI with respect to a particular series of Securities shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal (or premium, if any) or interest, upon presentation of the Securities of that series, and notation thereon of the payment, if only partially paid, and upon surrender thereof if fully paid:

FIRST: To the payment of reasonable costs and expenses of collection and of all amounts payable to the Trustee under Section 7.6;

SECOND: To the payment to holders of Securities of the amounts then due and unpaid upon Securities of such series for principal (and premium, if any), amounts payable upon redemption or repurchase of the Securities, and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal (and premium, if any) and interest, respectively; and

THIRD: To the payment of the remainder, if any, to the Company or any other Person lawfully entitled thereto.

The Trustee may fix a record date and payment date for any payment to holders pursuant to this Section 6.3. At least 15 days before such record date, the Company shall mail to each holder and the Trustee a notice that states the record date, the payment date and the amount to be paid.

SECTION 6.4 LIMITATION ON SUITS.

No holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to this Indenture or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless (i) such holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof with respect to the Securities of such series specifying such Event of Default, as hereinbefore provided; (ii) the holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding in its own name as Trustee hereunder; (iii) such holder or holders shall have offered to the Trustee such indemnity reasonably satisfactory to it against the costs, losses, expenses and liabilities to be incurred therein or thereby; (iv) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity, shall have failed to institute any such action, suit or proceeding and (v) during such 60 day period, the holders of a majority in principal amount of the Securities of that series do not give the Trustee a direction inconsistent with the request.

Notwithstanding anything contained herein to the contrary or any other provisions of this Indenture, the right of any holder of any Security to receive payment of the principal of (and premium, if any) and interest on such Security, as therein provided, on or after the respective due dates expressed in such Security (or in the case of redemption, on the redemption date), or to institute suit for the enforcement of any such payment on or after such respective dates or redemption date, shall not be impaired or affected without the consent of such holder and by accepting a Security hereunder it is expressly understood, intended and covenanted by the taker and holder of every Security of such series with every other such taker and holder and the Trustee, that no one or more holders of Securities of such series shall have any right in any manner whatsoever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of the holders of any other of such Securities, or to obtain or seek to obtain priority over or preference to any other such holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all holders of Securities of such series (it being understood that the Trustee does not have an affirmative duty to ascertain whether or not such actions or forbearances are unduly prejudicial to such holders). For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

SECTION 6.5**RIGHTS AND REMEDIES CUMULATIVE; DELAY OR OMISSION NOT WAIVER.**

(a) Except as otherwise provided in Section 2.7, all powers and remedies given by this Article VI to the Trustee or to the Securityholders shall, to the extent permitted by law, be deemed cumulative and not exclusive of any other powers and remedies available to the Trustee or the holders of the Securities, by judicial proceedings or otherwise, to enforce the performance or observance of the covenants and agreements contained in this Indenture or otherwise established with respect to such Securities.

(b) No delay or omission of the Trustee or of any holder of any of the Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power, or shall be construed to be a waiver of any such default or an acquiescence therein; and, subject to the provisions of Section 6.4, every power and remedy given by this Article VI or by law to the Trustee or the Securityholders may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Securityholders.

SECTION 6.6 CONTROL BY SECURITYHOLDERS.

The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding, determined in accordance with Section 8.4, shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to such series; provided, however, that such direction shall not be in conflict with any rule of law or with this Indenture. Subject to the provisions of Section 7.1, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Trust Officer or officers of the Trustee, determine that the proceeding so directed, subject to the Trustee's duties under the Trust Indenture Act, would involve the Trustee in personal liability or might be unduly prejudicial to the Securityholders not involved in the proceeding. The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding affected thereby, determined in accordance with Section 8.4, may on behalf of the holders of all of the Securities of such series waive any past default in the performance of any of the covenants contained herein or established pursuant to Section 2.1 with respect to such series and its consequences, except a default in the payment of the principal of, or premium, if any, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal and any premium has been deposited with the Trustee (in accordance with Section 6.1(c)), which requires the consent of each holder affected by such waiver. Upon any such waiver, the default covered thereby shall be deemed to be cured for all purposes of this Indenture and the Company, the Trustee and the holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

SECTION 6.7 UNDERTAKING TO PAY COSTS.

All parties to this Indenture agree, and each holder of any Securities by such holder's acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Securityholder, or group of Securityholders, holding more than 10% in aggregate principal amount of the Outstanding Securities of any series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

ARTICLE VII**CONCERNING THE TRUSTEE****SECTION 7.1 CERTAIN DUTIES AND RESPONSIBILITIES OF TRUSTEE.**

(a) The Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing of all Events of Default with respect to the Securities of that series that may have occurred, shall undertake to perform with respect to the Securities of such series such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants shall be read into this Indenture against the Trustee. In case an Event of Default with respect to the Securities of a series has occurred (that has not been cured or waived), the Trustee shall exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs. Except during the continuance of an Event of Default with respect to the Securities of a series, in the absence of bad faith on its part, the Trustee may with respect to the Securities of such series conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein).

(b) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(i) this subsection (b) shall not be construed to limit the effect of subsection (a) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Trust Officer or Trust Officers of the Trustee, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the holders of not less than a majority in principal amount of the Securities of any series at the time Outstanding relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee under this Indenture with respect to the Securities of that series; and

(iv) None of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers if there is reasonable ground for believing that the repayment of such funds or liability is not reasonably assured to it under the terms of this Indenture or adequate indemnity against such risk is not reasonably assured to it.

(c) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

SECTION 7.2 CERTAIN RIGHTS OF TRUSTEE.

Except as otherwise provided in Section 7.1:

(a) The Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) Any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by a Board Resolution or an instrument signed in the name of the Company by any authorized officer of the Company (unless other evidence in respect thereof is specifically prescribed herein);

(c) The Trustee may consult with counsel and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken or suffered or omitted hereunder in good faith and in reliance thereon;

(d) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee security or indemnity reasonably satisfactory to it against the costs, losses, expenses and liabilities that may be incurred therein or thereby; nothing contained herein shall, however, relieve the Trustee of the obligation, upon the occurrence of an Event of Default with respect to a series of the Securities (that has not been cured or waived), to exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and to use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs;

(e) The Trustee shall not be liable for any action taken or omitted to be taken by it in good faith and believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(f) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security, or other papers or documents, unless requested in writing so to do by the holders of not less than a majority in principal amount of the Outstanding Securities of the particular series affected thereby (determined as provided in Section 8.4), and, if so requested, except as otherwise prohibited by applicable law or as would reasonably be expected to violate or result in the loss or impairment of any attorney-client or work product privilege, the Trustee shall be entitled to examine the books, records, and premises of the Company, personally or by agent, or attorney, and it shall incur no liability or additional liability of any kind by reason of such inquiry or investigation; provided, however, that the Company shall not be required to provide access or furnish information in the event of any litigation involving this Indenture or the Securities except pursuant to applicable rules of discovery; and provided, further, that if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such costs, expenses or liabilities as a condition to so proceeding. The reasonable expense of every such examination shall be paid by the Company or, if paid by the Trustee, shall be repaid by the Company upon demand;

(g) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(h) In no event shall the Trustee be responsible or liable for special, indirect, punitive or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action;

(i) The Trustee shall not be deemed to have notice of any Default or Event of Default unless a Trust Officer has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities and this Indenture;

(j) The rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed to act hereunder;

(k) The Trustee shall not be required to give any bond or surety in respect of the performance of its powers and duties hereunder;

(l) The Trustee shall not be liable for the acts or omissions of any other agent of the Company, and may assume performance by any such agent of its duties, absent written notice or actual knowledge to the contrary; and

(m) The permissive right of the Trustee to take the actions permitted by this Indenture shall not be construed as an obligation or duty to do so.

SECTION 7.3 TRUSTEE NOT RESPONSIBLE FOR RECITALS OR ISSUANCE OR SECURITIES.

(a) The recitals contained herein and in the Securities shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same.

(b) The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities.

(c) The Trustee shall not be accountable for the use or application by the Company of any of the Securities or of the proceeds of such Securities, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture or established pursuant to Section 2.1, or for the use or application of any moneys received by any Paying Agent other than the Trustee.

SECTION 7.4 MAY HOLD SECURITIES AND OTHERWISE DEAL WITH THE COMPANY.

Subject to the Trust Indenture Act, the Trustee, the Security Registrar, any Paying Agent or any other agent of the Company, in its individual or any other capacity, may buy, own, hold, sell and become the pledgee of any of the Securities or any other evidences of indebtedness or other securities, whether heretofore or hereafter created or issued, of the Company or any Subsidiary or Affiliate of the Company with the same rights it would have if it were not Trustee, Security Registrar, Paying Agent or such other agent; and the Trustee may engage or be interested in any financial or other transaction with the Company or any Subsidiary or Affiliate of the Company, including, without limitation, secured and unsecured loans to the Company or any Subsidiary or Affiliate of the Company; and may maintain any and all other general banking and business relations with the Company and any Subsidiary or Affiliate of the Company with like effect and in the same manner and to the same extent as if the Trustee were not a party to this Indenture; and no implied covenant shall be read into this Indenture against the Trustee in respect of any such matters.

SECTION 7.5 MONEYS HELD IN TRUST.

Subject to the provisions of Sections 11.2, 12.5, 12.6 and 12.7, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any moneys received by it hereunder except such as it may agree with the Company to pay thereon.

SECTION 7.6 COMPENSATION AND REIMBURSEMENT.

(a) The Company covenants and agrees to pay to the Trustee, and the Trustee shall be entitled to, such compensation (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) as the Company and the Trustee may from time to time agree in writing, for all services rendered by it in the execution of the trusts hereby created and in the exercise and performance of any of the powers and duties hereunder of the Trustee, and, except as otherwise expressly provided herein, the Company will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all Persons not regularly in its employ), except any such expense, disbursement or advance as may arise from its negligence or willful misconduct and except as the Company and Trustee may from time to time agree in writing. The Company also covenants to indemnify the Trustee (and its officers, agents, directors and employees) for, and to hold it harmless against, any loss, costs, damages, liability or expense incurred without negligence or willful misconduct on the part of the Trustee (as determined by a court of competent jurisdiction in a final and non-appealable judgment) and arising out of or in connection with the acceptance or administration of this trust, including the reasonable costs and expenses of defending itself against any claim of liability in the premises.

(b) To secure the Company's payment obligations in this Section 7.6, the Trustee shall have a lien prior to the Securities of any series on all money or property held or collected by the Trustee, except that held in trust to pay principal of and interest on particular Securities of such series.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.1(a)(4) or 6.1(a)(5) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

The provisions of this Section 7.6 shall survive the resignation or removal of the Trustee and the termination or satisfaction of this Indenture.

SECTION 7.7 RELIANCE ON OFFICER'S CERTIFICATE.

Except as otherwise provided in Section 7.1, whenever in the administration of the provisions of this Indenture the Trustee shall deem it reasonably necessary or desirable that a matter be proved or established prior to taking or suffering or omitting to take any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or willful misconduct on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee and such certificate, in the absence of negligence or willful misconduct on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted to be taken by it under the provisions of this Indenture upon the faith thereof.

SECTION 7.8 DISQUALIFICATION; CONFLICTING INTERESTS.

If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Company shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

SECTION 7.9 CORPORATE TRUSTEE REQUIRED; ELIGIBILITY.

There shall at all times be a Trustee with respect to the Securities issued hereunder which shall at all times be a corporation organized and doing business under the laws of the U.S. or any state or territory thereof or of the District of Columbia, or a corporation or other Person permitted to act as trustee by the Commission, authorized under such laws to exercise corporate trust powers, having (or, in the case of a subsidiary of a bank holding company, its bank holding company parent shall have) a combined capital and surplus of at least one hundred million U.S. dollars (\$100,000,000), and subject to supervision or examination by federal, state, territorial, or District of Columbia authority.

If such corporation or other Person publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation or other Person shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Company may not, nor may any Person directly or indirectly controlling, controlled by, or under common control with the Company, serve as Trustee. In case at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, the Trustee shall resign immediately in the manner and with the effect specified in Section 7.10.

SECTION 7.10 RESIGNATION AND REMOVAL; APPOINTMENT OF SUCCESSOR.

(a) The Trustee or any successor hereafter appointed may at any time resign with respect to the Securities of one or more series by giving written notice thereof to the Company and by transmitting notice of resignation by mail, first class postage prepaid (or, in the case of Securities held in book-entry form, by electronic transmission), to the Securityholders of such series, as their names and addresses appear upon the Security Register. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to Securities of such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 days after the mailing of such notice of resignation, the resigning Trustee may at the expense of the Company, petition any court of competent jurisdiction for the appointment of a successor trustee with respect to Securities of such series, or the holders of at least 10% in the aggregate principal amount of Outstanding Securities may petition any such court for the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any one of the following shall occur:

(i) the Trustee shall fail to comply with the provisions of Section 7.8 after written request therefor by the Company or by any Securityholder who has been a bona fide holder of a Security or Securities for at least six months; or

(ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.9 and shall fail to resign after written request therefor by the Company or by any such Securityholder; or

(iii) the Trustee shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or commence a voluntary bankruptcy proceeding, or a receiver of the Trustee or of its property shall be appointed or consented to, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, the Company may remove the Trustee with respect to all Securities and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or any Securityholder who has been a bona fide holder of a Security or Securities for at least six months may, on behalf of that holder and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding may, upon 30 days' notice, remove the Trustee with respect to such series by so notifying the Trustee and the Company and may appoint a successor Trustee for such series with the consent of the Company.

(d) Any resignation or removal of the Trustee and appointment of a successor trustee with respect to the Securities of a series pursuant to any of the provisions of this Section shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.11.

(e) Any successor trustee appointed pursuant to this Section may be appointed with respect to the Securities of one or more series or all of such series, and at any time there shall be only one Trustee with respect to the Securities of any particular series.

SECTION 7.11 ACCEPTANCE OF APPOINTMENT BY SUCCESSOR.

(a) In case of the appointment hereunder of a successor trustee with respect to all Securities, every such successor trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor trustee all the rights, powers, and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates, (ii) shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust, that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee and that no Trustee shall be responsible for any act or failure to act on the part of any other Trustee hereunder; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein, such retiring Trustee shall with respect to the Securities of that or those series to which the appointment of such successor trustee relates have no further responsibility for the exercise of rights and powers or for the performance of the duties and obligations vested in the Trustee under this Indenture, and each such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates; but, on request of the Company or any successor trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor trustee, to the extent contemplated by such supplemental indenture, the property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor trustee relates.

(c) Upon request of any such successor trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor trustee shall accept its appointment unless at the time of such acceptance such successor trustee shall be qualified and eligible under this Article VII.

(e) Upon acceptance of appointment by a successor trustee as provided in this Section, the Company shall transmit notice of the succession of such trustee hereunder by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register. If the Company fails to transmit such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be transmitted at the expense of the Company.

SECTION 7.12 MERGER, CONVERSION, CONSOLIDATION OR SUCCESSION TO BUSINESS.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Trustee (including the administration of the trust created by this Indenture), shall be the successor of the Trustee hereunder, provided that such corporation shall be qualified under the provisions of Section 7.8 and eligible under the provisions of Section 7.9, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

SECTION 7.13 PREFERENTIAL COLLECTION OF CLAIMS AGAINST THE COMPANY.

The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

SECTION 7.14 NOTICE OF DEFAULT.

If any Default or any Event of Default occurs and is continuing and if the Trustee has notice of such Default or Event of Default, the Trustee shall mail to each Securityholder in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act notice of the Default or Event of Default within 90 days after it occurs (or, the Trustee does not have notice of such Default or Event of Default until after that time, 15 days after the Trustee has notice of such Default or Event of Default), unless such Default or Event of Default has been cured; provided, however, that, except in the case of a default in the payment of the principal of (or premium, if any) or interest on any Security, the Trustee shall be protected in withholding such notice if and so long as the Trustee in good faith determines that the withholding of such notice is in the interest of the Securityholders.

SECTION 7.15 LIMITATION OF LIABILITY

The Trustee is entering into this Indenture and the other documents contemplated hereby and related hereto to which it is a party solely in its capacity as trustee under the Indenture and not in its individual capacity (except as expressly stated herein) and in no case shall the Trustee (or any Person acting as successor trustee under this Indenture) be personally liable for or on account of any of the statements, representations, warranties, covenants or obligations stated to be those of the Company hereunder or thereunder, all such liability, if any, being expressly waived by the parties hereto and any person claiming by, through or under such party.

ARTICLE VIII

CONCERNING THE SECURITYHOLDERS

SECTION 8.1 EVIDENCE OF ACTION BY SECURITYHOLDERS.

Whenever in this Indenture it is provided that the holders of a majority or specified percentage in aggregate principal amount of the Securities of a particular series may take any action (including the making of any demand or request, the giving of any notice, consent or waiver or the taking of any other action), the fact that at the time of taking any such action the holders of such majority or specified percentage of that series have joined therein may be evidenced by any instrument or any number of instruments of similar tenor executed by such holders of Securities of that series in person or by agent or proxy appointed in writing.

If the Company shall solicit from the Securityholders of any series any request, demand, authorization, direction, notice, consent, waiver or other action, the Company may, at its option, as evidenced by an Officer's Certificate, fix in advance a record date for such series for the determination of Securityholders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other action, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other action may be given before or after the record date, but only the Securityholders of record at the close of business on the record date shall be deemed to be Securityholders for the purposes of determining whether Securityholders of the requisite proportion of Outstanding Securities of that series have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other action, and for that purpose the Outstanding Securities of that series shall be computed as of the record date; provided, however, that no such authorization, agreement or consent by such Securityholders on the record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

SECTION 8.2 PROOF OF EXECUTION BY SECURITYHOLDERS.

Subject to the provisions of Section 7.1, proof of the execution of any instrument by a Securityholder (such proof will not require notarization) or his agent or proxy and proof of the holding by any Person of any of the Securities shall be sufficient if made in the following manner:

- (a) The fact and date of the execution by any such Person of any instrument may be proved in any reasonable manner acceptable to the Trustee.
- (b) The ownership of Securities shall be proved by the Security Register of such Securities or by a certificate of the Security Registrar thereof.

The Trustee may require such additional proof of any matter referred to in this Section as it shall deem necessary.

SECTION 8.3 WHO MAY BE DEEMED OWNERS.

Prior to the due presentment for registration of transfer of any Security, the Company, the Trustee, any Paying Agent and any Security Registrar may deem and treat the Person in whose name such Security shall be registered upon the books of the Security Registrar as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notice of ownership or writing thereon made by anyone other than the Security Registrar) for the purpose of receiving payment of or on account of the principal of, premium, if any, and (subject to Section 2.3) interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any Paying Agent nor any Security Registrar shall be affected by any notice to the contrary.

SECTION 8.4 CERTAIN SECURITIES OWNED BY COMPANY DISREGARDED.

In determining whether the holders of the requisite aggregate principal amount of Securities of a particular series have concurred in any direction, consent or waiver under this Indenture, the Securities of that series that are owned by the Company or any other obligor on the Securities of that series or by any Person directly or indirectly controlling or controlled by or under common control with the Company or any other obligor on the Securities of that series shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities of such series that the Trustee actually knows are so owned shall be so disregarded. The Securities so owned that have been pledged in good faith may be regarded as Outstanding for the purposes of this Section, if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not a Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company or any such other obligor. In case of a dispute as to such right, any decision by the Trustee taken upon the advice of counsel shall be full protection to the Trustee.

SECTION 8.5 ACTIONS BINDING ON FUTURE SECURITYHOLDERS.

At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 8.1, of the taking of any action by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action, any holder of a Security of that series that is shown by the evidence to be included in the Securities the holders of which have consented to such action may, by filing written notice with the Trustee, and upon proof of holding as provided in Section 8.2, revoke such action so far as concerns such Security. Except as aforesaid any such action taken by the holder of any Security shall be conclusive and binding upon such holder and upon all future holders and owners of such Security, and of any Security issued in exchange therefor, on registration of transfer thereof or in place thereof, irrespective of whether or not any notation in regard thereto is made upon such Security. Any action taken by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action shall be conclusively binding upon the Company, the Trustee and the holders of all the Securities of that series.

ARTICLE IX

SUPPLEMENTAL INDENTURES

SECTION 9.1

SUPPLEMENTAL INDENTURES WITHOUT THE CONSENT OF SECURITYHOLDERS.

In addition to any supplemental indenture otherwise authorized by this Indenture, the Company and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall comply with the provisions of the Trust Indenture Act as then in effect), without the consent of the Securityholders, for one or more of the following purposes:

(a) to cure any ambiguity, defect, omission or inconsistency herein or in the Securities of any series (with such ambiguity, defect, omission or inconsistency being evidenced by an Officer's Certificate);

(b) to comply with Article X, including to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and in the Securities contained or to provide for the assumption of a guarantor's obligations to holders of the Securities in the case of a merger or consolidation or sale of all or substantially all of the guarantor's assets;

(c) to provide for uncertificated Securities in addition to or in place of certificated Securities; provided that the uncertificated Securities are issued in registered form for purposes of Section 163(f) of the Code;

(d) to add to the covenants of the Company or any guarantor for the benefit of the holders of the Securities of any series or to surrender any right or power conferred upon the Company or any guarantor;

(e) to provide for the issuance of additional Securities of any series in accordance with the terms of this Indenture;

(f) to evidence and provide for the acceptance of appointment hereunder by a successor trustee;

(g) to comply with any requirements of the Commission or any successor in connection with the qualification of this Indenture under the Trust Indenture Act;

(h) to provide security for the Securities of any series or to provide for any guarantee of the Securities of any series or to confirm or evidence the release, termination or discharge of any guarantee of or lien securing the Securities of any series when such release, termination or discharge is permitted by this Indenture;

(i) to make any change that would provide any additional rights or benefits to the holders of the Securities of any series or that does not adversely affect the legal rights under this Indenture of any holder;

(j) to make any amendment to the provision of this Indenture relating to the transfer and legending of the Securities of any series; provided, however, that (1) compliance with this Indenture as so amended would not result in Securities of such series being transferred in violation of the Securities Act or any other applicable securities law and (2) such amendment does not materially and adversely affect the rights of holders to transfer Securities of such series; or

(k) to conform the text of this Indenture, any guarantee of the Securities of any series or the notes to any provision of the "Description of Debt Securities and Guarantees" included in the prospectus forming a part of the registration statement filed by the Company with the Commission on Form S-3 on April [], 2023, or any subsequent description of Securities contained in any prospectus supplement, to the extent that such provision in that "Description of Debt Securities and Guarantees" or any subsequent description of Securities contained in any prospectus supplement was intended by the Company to be a verbatim recitation of a provision of this Indenture, any guarantee of the Securities of any series or the Securities, as applicable (with such intention being evidenced by an Officer's Certificate).

The Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section may be executed by the Company and the Trustee without the consent of the holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 9.2.

SECTION 9.2**SUPPLEMENTAL INDENTURES WITH THE CONSENT OF SECURITYHOLDERS.**

With the consent (evidenced as provided in Section 8.1) of the holders of not less than a majority in aggregate principal amount of the Securities of each series affected by such supplemental indenture or indentures at the time Outstanding (including consents obtained in connection with a tender offer or exchange offer for the Securities), the Company, when authorized by a Board Resolution, and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall comply with the provisions of the Trust Indenture Act as then in effect) for the purpose of adding any provisions to or changing in any manner or eliminating (or waiving any past default or compliance with) any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner not covered by Section 9.1 the rights of the holders of the Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the holders of each Security then Outstanding and affected thereby,

(a) reduce the percentage or aggregate principal amount of Securities, the holders of which are required to consent to any modification, amendment, supplement or waiver;

(b) reduce the principal amount of, or premium, if any, or rate of interest on, such Securities;

(c) extend the fixed maturity of such Securities;

(d) extend the time for payment of interest on such Securities;

(e) reduce the redemption or repurchase price of such Securities or change the time at which the Securities may or must be redeemed or repurchased;

(f) change the currency of payment of principal of, or premium, if any, or interest on, such Securities;

(g) waive a default in the payment of principal of, premium, if any, or interest on such Securities (except as provided in Section 6.1(c));

(h) voluntarily release a guarantor of such Securities other than in accordance with this Indenture;

(i) reduce the percentage or aggregate principal amount of Outstanding Securities the consent of whose holders is necessary for waiver of compliance with certain provisions of this Indenture or for waiver of certain defaults; or

(j) impair the right to institute suit for the enforcement of any payment on or after the stated maturity (or, in the case of a redemption, on or after the redemption date) of such Securities.

It shall not be necessary for the consent of the Securityholders of any series affected thereby under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such consent shall approve the substance thereof.

SECTION 9.3**EFFECT OF SUPPLEMENTAL INDENTURES.**

Upon the execution of any supplemental indenture pursuant to the provisions of this Article IX or of Section 10.1, this Indenture shall, with respect to such series, be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the holders of Securities of the series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

SECTION 9.4**SECURITIES AFFECTED BY SUPPLEMENTAL INDENTURES.**

Securities of any series affected by a supplemental indenture, authenticated and delivered after the execution of such supplemental indenture pursuant to the provisions of this Article IX or of Section 10.1, may bear a notation in form approved by the Company, provided such form meets the requirements of any securities exchange upon which such series may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of that series so modified as to conform, in the opinion of the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities of that series then Outstanding.

SECTION 9.5**EXECUTION OF SUPPLEMENTAL INDENTURES.**

Upon the request of the Company, accompanied by its Board Resolutions authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders required to consent thereto as aforesaid, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion but shall not be obligated to enter into such supplemental indenture. The Trustee shall receive, in addition to the documents required by Section 14.7(a), an Officer's Certificate and an Opinion of Counsel stating that and as conclusive evidence that any supplemental indenture executed pursuant to this Article IX is authorized or permitted by, and conforms to, the terms of this Article IX, constitutes the legal, valid and binding obligation of the Company, enforceable against it in accordance with its terms (subject to customary exceptions) and that it is proper for the Trustee under the provisions of this Article IX to join in the execution thereof.

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Company shall transmit by mail, first class postage prepaid, a notice, setting forth in general terms the substance of such supplemental indenture, to the Securityholders of all series affected thereby as their names and addresses appear upon the Security Register. Any failure of the Company to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

ARTICLE X

SUCCESSOR ENTITY

SECTION 10.1 COMPANY MAY CONSOLIDATE, ETC.

Except as provided pursuant to Section 2.1 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, nothing contained in this Indenture shall prevent any consolidation or merger of the Company with or into any other Person (whether or not affiliated with the Company) or successive consolidations or mergers in which the Company or its successor or successors shall be a party or parties, or shall prevent any sale, conveyance, transfer or other disposition of the property of the Company or its successor or successors as an entirety, or substantially as an entirety, to any other corporation (whether or not affiliated with the Company or its successor or successors) authorized to acquire and operate the same; provided, however, the Company hereby covenants and agrees that, upon any such consolidation or merger (in each case, if the Company is not the survivor of such transaction), sale, conveyance, transfer or other disposition, (a) the due and punctual payment of the principal of (premium, if any) and interest on all of the Securities of all series in accordance with the terms of each series, according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this Indenture with respect to each series or established with respect to such series pursuant to Section 2.1 to be kept or performed by the Company shall be expressly assumed, by supplemental indenture (which shall conform to the provisions of the Trust Indenture Act, as then in effect) executed and delivered to the Trustee by the entity formed by such consolidation, or into which the Company shall have been merged, or by the entity which shall have acquired such property and (b) in the event that the Securities of any series then Outstanding are convertible into or exchangeable for shares of common stock or other securities of the Company, such entity shall, by such supplemental indenture, make provision so that the Securityholders of Securities of that series shall thereafter be entitled to receive upon conversion or exchange of such Securities the number of securities or property to which a holder of the number of shares of common stock or other securities of the Company deliverable upon conversion or exchange of those Securities would have been entitled had such conversion or exchange occurred immediately prior to such consolidation, merger, sale, conveyance, transfer or other disposition.

SECTION 10.2 SUCCESSOR ENTITY SUBSTITUTED.

(a) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition and upon the assumption by the successor entity by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee of the obligations set forth under Section 10.1 on all of the Securities of all series Outstanding, such successor entity shall succeed to and be substituted for the Company with the same effect as if it had been named as the Company herein, and thereupon the predecessor corporation shall be relieved of all obligations and covenants under this Indenture and the Securities.

(b) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

(c) Nothing contained in this Article X shall require any action by the Company in the case of a consolidation or merger of any Person into the Company where the Company is the survivor of such transaction, or the acquisition by the Company, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Company).

SECTION 10.3 EVIDENCE OF CONSOLIDATION, ETC. TO TRUSTEE.

The Trustee, subject to the provisions of Section 7.1, shall receive an Officer's Certificate and an Opinion of Counsel stating that and as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or other disposition, and any such assumption, comply with the provisions of this Article X.

ARTICLE XI

SATISFACTION AND DISCHARGE

SECTION 11.1 SATISFACTION AND DISCHARGE OF INDENTURE.

This Indenture shall upon Company Request cease to be of further effect with respect to any series of Securities (except as to any surviving rights of registration of transfer or exchange of Securities of such series herein expressly provided for or in the form of Security for such series and any right to receive additional amounts), and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture as to such series, when

(a) either

(i) all Securities of such series theretofore authenticated and delivered (other than (i) Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.7 and (ii) Securities for whose payment cash, Governmental Obligations or a combination thereof has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Sections 12.5 and 12.6) have been delivered to the Trustee for cancellation; or

(ii) all such Securities of such series not theretofore delivered to the Trustee for cancellation, or

(A) have become due and payable by reason of the mailing of a notice of redemption or otherwise, or

(B) will become due and payable within one year,

and the Company, in the case of (A) or (B) above, has deposited or caused to be deposited with the Trustee as trust funds in trust specifically pledged as security for, and dedicated solely to, the benefit of the Securityholders of the Securities of that series, cash in U.S. dollars, Governmental Obligations or a combination thereof in such amount as will be sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal (and premium, if any) and interest, if any, to the date of such deposit (in the case of Securities which have become due and payable), or to the Stated Maturity or the Redemption Date, as the case may be;

(b) in respect of clause (a)(ii), no Event of Default has occurred and is continuing on the date of deposit (other than an Event of Default resulting from the borrowing of funds to be applied to such deposit and any similar deposit relating to other indebtedness and, in each case, the granting of certain liens to secure such borrowing);

(c) the Company or any guarantor has paid or caused to be paid all other sums payable hereunder by the Company with respect to such series; and

(d) the Company has delivered irrevocable instructions to the Trustee under this Indenture to apply the deposited money towards the payment of the notes at maturity or on the redemption date, as the case may be.

Notwithstanding the satisfaction and discharge of this Indenture with respect to such series, the obligations of the Company to the Trustee with respect to such series under this Section 11.1 and Sections 7.6 and 7.10, the obligations of the Company to any Authenticating Agent under Section 2.10, and, if cash, Governmental Obligations or a combination thereof shall have been deposited with the Trustee pursuant to subclause (ii) of clause (a) of this Section, the obligations of the Trustee under Section 11.2, shall survive.

SECTION 11.2 APPLICATION OF TRUST MONEY.

Subject to the provisions of Section 12.6, all cash and Governmental Obligations deposited with the Trustee pursuant to Section 11.1 shall be held in trust and applied by the Trustee, in accordance with the provisions of the series of Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company or any of its Subsidiaries acting as Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of all sums due and to become due thereon in respect of the principal of (and premium, if any) and interest, if any, on the Securities for which payment of such cash and Governmental Obligations has been deposited with the Trustee.

If the Trustee or Paying Agent is unable to apply any cash or Governmental Obligations in accordance with this Article XI by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the obligations of the Company under this Indenture and the Securities of such series shall be revived and reinstated as though no deposit had occurred pursuant to this Article XI until such time as the Trustee or Paying Agent is permitted to apply all such cash and Governmental Obligations in accordance with this Article XI; provided, however, that, if the Company has made any payment of principal, premium, if any, interest on or principal of any Securities because of the reinstatement of its obligations, the Company shall be subrogated to the rights of the holders of such Securities to receive such payment from the cash and Governmental Obligations held by the Trustee or Paying Agent.

ARTICLE XII

LEGAL DEFEASANCE AND COVENANT DEFEASANCE

SECTION 12.1 OPTION TO EFFECT LEGAL DEFEASANCE OR COVENANT DEFEASANCE.

The Company may at any time, at the option of its Board of Directors evidenced by a Board Resolution set forth in an Officer's Certificate, elect to have either Section 12.2 or 12.3 hereof be applied to all outstanding Securities of a series upon compliance with the conditions set forth below in this Article XII.

SECTION 12.2 LEGAL DEFEASANCE AND DISCHARGE.

Upon the Company's exercise under Section 12.1 hereof of the option applicable to this Section 12.2 with respect to a series of Securities, the Company will, subject to the satisfaction of the conditions set forth in Section 12.4 hereof, be deemed to have been discharged from its obligations with respect to all outstanding Securities of such series on the date the conditions set forth below are satisfied (hereinafter, "**Legal Defeasance**"). For this purpose, Legal Defeasance means that the Company will be deemed to have paid and discharged the entire Indebtedness represented by the Outstanding Securities of such series, which will thereafter be deemed to be Outstanding only for the purposes of Section 12.5 hereof and the Articles and other Sections of this Indenture referred to in clauses (1) and (2) below, and to have satisfied all their other obligations under such Securities and this Indenture (and the Trustee, on demand of and at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following provisions which will survive until otherwise terminated or discharged hereunder:

(1) the rights of holders of Outstanding Securities of such series to receive payments in respect of the principal of, premium on, if any, or interest on such Securities when such payments are due from the trust referred to in Section 12.4 hereof;

(2) the Issuers' obligations with respect to such Securities under Article 2 and Section 4.2 hereof;

(3) the rights, powers, trusts, duties and immunities of the Trustee hereunder and the Company's obligations in connection therewith; and

(4) this Article XII.

Subject to compliance with this Article XII, the Company may exercise its option under this Section 12.2 with respect to a series of Securities, notwithstanding the prior exercise of its option under Section 12.3 hereof with respect to such series of Securities.

SECTION 12.3 COVENANT DEFEASANCE.

Upon the Company's exercise under Section 12.1 hereof of the option applicable to this Section 12.3 with respect to a series of Securities, the Company will, subject to the satisfaction of the conditions set forth in Section 12.4 hereof, be released from its obligations under Section 5.3 and Article X and any additional covenants specified in any Board Resolution or indenture supplemental hereto with respect to the Outstanding Securities of such series on and after the date the conditions set forth in Section 12.4 hereof are satisfied (hereinafter, "**Covenant Defeasance**"), and the Securities of such series will thereafter be deemed not Outstanding for the purposes of any direction, waiver, consent or declaration or act of holders (and the consequences of any thereof) in connection with such covenants, but will continue to be deemed Outstanding for all other purposes hereunder (it being understood that such Securities will not be deemed Outstanding for accounting purposes). For this purpose, Covenant Defeasance means that, with respect to the Outstanding Securities of such series, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in Section 5.3 or Article X and any additional covenants specified in any Board Resolution or indenture supplemental hereto, whether directly or indirectly, by reason of any reference elsewhere herein to any such Section or Article or by reason of any reference in any such Section or Article to any other provision herein or in any other document and such omission to comply shall not constitute a Default or an Event of Default under Section 6.1 hereof with respect to Outstanding Securities of such series, but, except as specified above, the remainder of this Indenture and such Securities shall be unaffected thereby.

SECTION 12.4 CONDITIONS TO LEGAL OR COVENANT DEFEASANCE.

In order to exercise either Legal Defeasance or Covenant Defeasance under either Section 12.2 or 12.3 hereof with respect to the Outstanding Securities of a particular series:

(1) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the Securityholders of the Securities of that series, cash in U.S. dollars, Governmental Obligations, or a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized investment bank, appraisal firm, or firm of independent public accountants, to pay the principal of, premium on, if any, and interest on, the Outstanding Securities of such series on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Company must specify whether the Securities of such series are being defeased to such stated date for payment or to a particular redemption date;

(2) in the case of an election under Section 12.2 hereof, the Company must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that:

(A) the Company has received from, or there has been published by, the Internal Revenue Service a ruling; or

(B) since the date of this Indenture, there has been a change in the applicable federal income tax law,

in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the holders of the Outstanding Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(3) in the case of an election under Section 12.3 hereof, the Company must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that the holders of the Outstanding Securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(4) no Default or Event of Default with respect to the Securities of such series shall have occurred and be continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit (and any similar concurrent deposit relating to other Indebtedness), and the granting of liens to secure such borrowings);

(5) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than this Indenture and the agreements governing any other Indebtedness being defeased, discharged or replaced) to which the Company is a party or by which the Company is bound; and

(6) the Company must deliver to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

SECTION 12.5 DEPOSITED MONEY AND GOVERNMENT SECURITIES TO BE HELD IN TRUST; OTHER MISCELLANEOUS PROVISIONS.

Subject to Section 12.6 hereof, all cash and Governmental Obligations (including the proceeds thereof) deposited with the Trustee pursuant to Section 12.4 hereof in respect of the Outstanding Securities of a particular series shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as Paying Agent) as the Trustee may determine, to the holders of such Securities of all sums due and to become due thereon in respect of principal, premium, if any, and interest, but such money need not be segregated from other funds except to the extent required by law.

The Company will pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the cash or Governmental Obligations deposited pursuant to Section 12.4 hereof or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the holders of the Outstanding Securities of the applicable series.

Notwithstanding anything in this Article XII to the contrary, the Trustee shall deliver or pay to the Company from time to time upon Company Request any cash or Governmental Obligations held by it as provided in Section 12.4 hereof which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee (which may be the opinion delivered under Section 12.4(1) hereof), are in excess of the amount thereof that would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.

SECTION 12.6 REPAYMENT TO COMPANY.

Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of, premium on, if any, or interest on any Security and remaining unclaimed for two years after such principal, premium, if any, or interest, has become due and payable shall, unless otherwise required by mandatory provisions of applicable escheat or abandoned or unclaimed property law, be paid to the Company on its request or (if then held by the Company) will be discharged from such trust; and the holder of such Security will thereafter, as an unsecured general creditor, be permitted to look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, will thereupon cease; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such repayment, may give written notice to the holder of such Security, at such holder's address as it appears upon the Security Register, that such money remains unclaimed and that, after a date specified therein, which will not be less than 30 days from the date of such notification, any unclaimed balance of such money then remaining will, unless otherwise required by mandatory provisions of applicable escheat or abandoned or unclaimed property law, be repaid to the Company.

SECTION 12.7 REINSTATEMENT.

If the Trustee or Paying Agent is unable to apply any cash or Governmental Obligations in accordance with Section 12.2 or 12.3 hereof, as the case may be, by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Securities of the particular series shall be revived and reinstated as though no deposit had occurred pursuant to Section 12.2 or 12.3 hereof until such time as the Trustee or Paying Agent is permitted to apply all such cash or Governmental Obligations in accordance with Section 12.2 or 12.3 hereof, as the case may be; *provided, however*, that, if the Company makes any payment of principal of, premium on, if any, or interest on, any Security of the particular series following the reinstatement of its obligations, the Company shall be subrogated to the rights of the holders of such Securities to receive such payment from the cash or Governmental Obligations held by the Trustee or Paying Agent.

ARTICLE XIII

IMMUNITY OF INCORPORATORS, STOCKHOLDERS,

OFFICERS AND DIRECTORS

SECTION 13.1 NO RECOURSE.

No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Company or of any predecessor or successor corporation, either directly or through the Company or any such predecessor or successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors as such, of the Company or of any predecessor or successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Securities.

ARTICLE XIV

MISCELLANEOUS PROVISIONS

SECTION 14.1 EFFECT ON SUCCESSORS AND ASSIGNS.

All the covenants, stipulations, promises and agreements in this Indenture made by or on behalf of the Company shall bind its successors and assigns, whether so expressed or not. All the covenants, stipulations, promises and agreements in this Indenture made by or on behalf of the Trustee shall bind its successors and assigns, whether so expressed or not.

SECTION 14.2 ACTIONS BY SUCCESSOR.

Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board, committee or officer of the Company shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Company.

SECTION 14.3 SURRENDER OF COMPANY POWERS.

The Company by instrument in writing executed by authority of its Board of Directors and delivered to the Trustee may surrender any of the powers reserved to the Company, and thereupon such power so surrendered shall terminate both as to the Company and as to any successor corporation.

SECTION 14.4 NOTICES.

Except as otherwise expressly provided herein, any notice, request or demand that by any provision of this Indenture is required or permitted to be given, made or served by the Trustee or by the holders of Securities or by any other Person pursuant to this Indenture to or on the Company may be given or served by being deposited in first class mail, postage prepaid, addressed, as follows: SAB Biotherapeutics, Inc., 2100 East 54th Street North, Sioux Falls, South Dakota 57104, Attention: Secretary. Any notice, election, request or demand by the Company or any Securityholder or by any other Person pursuant to this Indenture to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made in writing at the Corporate Trust Office of the Trustee.

SECTION 14.5 GOVERNING LAW/WAIVER OF JURY TRIAL.

This Indenture and each Security shall be deemed to be a contract made under the internal laws of the State of New York, and for all purposes shall be construed in accordance with the laws of said State, except to the extent that the Trust Indenture Act is applicable. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT.

SECTION 14.6 TREATMENT OF SECURITIES AS DEBT.

It is intended that the Securities will be treated as indebtedness and not as equity for federal income tax purposes. The provisions of this Indenture shall be interpreted to further this intention.

SECTION 14.7 COMPLIANCE CERTIFICATES AND OPINIONS.

(a) Upon any application or demand by the Company to the Trustee to take any action under any of the provisions of this Indenture, the Company shall furnish to the Trustee an Officer's Certificate stating that all conditions precedent provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.

(b) Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant in this Indenture shall include (i) a statement that the Person making such certificate or opinion has read such covenant or condition; (ii) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based; (iii) a statement that, in the opinion of such Person, he has made such examination or investigation as is reasonably necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and (iv) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with.

SECTION 14.8 PAYMENTS ON BUSINESS DAYS.

Except as provided pursuant to Section 2.1 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, in any case where the date of maturity of interest or principal of any Security or the date of redemption of any Security shall not be a Business Day, then payment of interest or principal (and premium, if any) may be made on the next succeeding Business Day with the same force and effect as if made on the nominal date of maturity or redemption, and no interest shall accrue for the period after such nominal date.

SECTION 14.9 CONFLICT WITH TRUST INDENTURE ACT.

If and to the extent that any provision of this Indenture limits, qualifies or conflicts with any provision of the Trust Indenture Act, such Trust Indenture Act provision shall control.

SECTION 14.10 COUNTERPARTS.

This Indenture may be executed in any number of counterparts, each of which shall be deemed an original, but such counterparts shall together constitute but one and the same instrument.

SECTION 14.11 SEVERABILITY.

In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

SECTION 14.12 COMPLIANCE CERTIFICATES.

The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year during which any Securities of any series were outstanding, an Officer's Certificate stating whether or not the signers know of any Default or Event of Default that occurred during such fiscal year. Such certificate shall contain a certification from the principal executive officer, principal financial officer or principal accounting officer of the Company that a review has been conducted of the activities of the Company and the Company's performance under this Indenture and that the Company has complied with all conditions and covenants under this Indenture. For purposes of this Section 14.12, such compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture. If any of the officers of the Company signing such certificate has knowledge of such a Default or Event of Default, the certificate shall describe any such Default or Event of Default and its status.

SECTION 14.13 USA PATRIOT ACT

The parties hereto acknowledge that, in accordance with Section 326 of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (as amended, modified or supplemented from time to time, the “**USA Patriot Act**”), the Trustee, like all financial institutions, is required to obtain, verify, and record information that identifies each Person or legal entity that opens an account. The parties to this Indenture agree that they will provide the Trustee with such information as the Trustee may request in order for the Trustee to satisfy the requirements of the USA Patriot Act.

SECTION 14.14 CONSENT TO JURISDICTION AND SERVICE

To the fullest extent permitted by applicable law, each party hereby irrevocably submits to the non-exclusive jurisdiction of any Federal or State court located in the Borough of Manhattan in The City of New York, New York in any suit, action or proceeding based on or arising out of or relating to this Indenture or any Securities and irrevocably agrees that all claims in respect of such suit or proceeding may be determined in any such court. Each party irrevocably waives, to the fullest extent permitted by law, any objection which it may have to the laying of the venue of any such suit, action or proceeding brought in an inconvenient forum. Each party agrees that final judgment in any such suit, action or proceeding brought in such a court shall be conclusive and binding upon such party, and may be enforced in any courts to the jurisdiction of which such party is subject by a suit upon such judgment, provided, that service of process is effected upon such party in the manner specified herein or as otherwise permitted by law.

SECTION 14.15 FORCE MAJEURE

In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.

SAB BIOTHERAPEUTICS, INC.

By: _____

Name:

Title:

, as Trustee

By: _____

Name:

Title:



Dentons US LLP
1221 Avenue of the Americas
New York, NY 10020-1089
United States
dentons.com

May 9, 2023

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

Re: SAB Biotherapeutics, Inc. Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to SAB Biotherapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing of a Registration Statement on Form S-3 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act and the proposed issuance and sale from time to time by the Company of up to an aggregate offering amount of \$50,000,000 of the following securities (each a "Company Security" and collectively, or in any combination, the "Company Securities"):

- (i) shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock");
- (ii) one or more classes or series of shares of the Company's preferred stock, par value \$0.0001 per share (the "Preferred Stock");
- (iii) one or more series of debt securities, which may be senior or subordinated debt or senior or subordinated convertible debt (the "Debt Securities");
- (iv) warrants representing the rights to purchase shares of Common Stock, Preferred Stock, or Debt Securities (the "Warrants");
- (v) subscription rights to purchase shares of Common Stock, Preferred Stock or Debt Securities (the "Subscription Rights"); and
- (vi) units comprised of one or more of the Company Securities in one or more series and in any combination (the "Units").

For the purposes of this opinion letter, the Company Securities shall be deemed to include any additional Common Stock, Preferred Stock, Debt Securities, Warrants, Subscription Rights and Units that may be registered pursuant to any registration statement that the Company may hereafter file with the Commission pursuant to Rule 462(b) under the Securities Act.

This opinion letter is being furnished to the Company in accordance with the requirements of Item 601(b)(5) of Regulation S-K. The opinions set forth herein are limited to applicable laws as in effect on the date hereof.

The Company Securities may be issued and sold by the Company from time to time on a delayed or continuous basis pursuant to applicable provisions of Rule 415 under the Securities Act, in amounts, at prices and on terms to be determined in light of market conditions at the time of sale, and as set forth in the Registration Statement, any amendment thereto, the prospectus contained therein (the "Base Prospectus") and any supplements to the Prospectus (each, together with the Base Prospectus, a "Prospectus"). We are basing this opinion letter on our understanding that, prior to issuing any Company Securities in connection with the Registration Statement, the Company will advise us in writing of the terms thereof and other information material thereto, will afford us an opportunity to review the operative documents pursuant to which such Company Securities are to be issued (including the Registration Statement, the Prospectus and the applicable supplement to the Prospectus, as then in effect) and will file such supplement or amendment to this opinion letter (if any) as we may reasonably consider necessary or appropriate with respect to such Company Securities. However, we undertake no responsibility to monitor the Company's future compliance with applicable laws, rules or regulations of the Commission or other governmental body.

In connection with rendering this opinion, we have examined originals, certified copies or copies otherwise identified as being true copies of the following:

- (a) the Registration Statement;
- (b) the Certificate of Incorporation of the Company, as amended and restated (the "Certificate of Incorporation");
- (c) the Bylaws of the Company, as amended and restated (the "Bylaws");
- (d) corporate proceedings of the Company relating to its proposed issuance of the Company Securities; and
- (e) such other instruments and documents as we have deemed relevant or necessary in connection with our opinions set forth herein.

Unless otherwise provided in any Prospectus relating to a particular series of Debt Securities, the Debt Securities will be issued pursuant to an indenture (the "Indenture") between the Company and a trustee to be named in the applicable supplement to the Prospectus (the "Trustee"). Any Debt Securities may be convertible into shares of Common Stock or other Company Securities. The Company Securities are to be sold pursuant to a purchase, underwriting or similar agreement in substantially the form to be filed under a Current Report on Form 8-K. The Warrants will be issued under one or more warrant agreements (each, a "Warrant Agreement"). The Subscription Rights will be issued under one or more subscription rights agreements (each a "Subscription Rights Agreement"). The Units will be issued under one or more unit purchase agreements (each a "Unit Purchase Agreement").

In making the aforesaid examinations, we have assumed the genuineness and authenticity of all documents examined by us and all signatures therein and the conformity to originals of all copies of all documents examined by us. We have also assumed that the corporate records furnished to us by the Company include all corporate proceedings taken by it to date.

Based on and subject to the assumptions, qualifications and limitations set forth herein, we are of the opinion that:

(1) With respect to shares of Common Stock, when all necessary corporate action of the Company has been taken to approve an issuance of shares of Common Stock, and certificates representing the shares of Common Stock have been duly executed, countersigned, registered and delivered (or non-certificated shares of Common Stock shall have been properly issued), either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board of Directors of the Company (the “Board of Directors”), upon payment of the consideration therefor (which consideration shall not be less than the par value of the Common Stock) provided for in such definitive purchase, underwriting or similar agreement, as applicable, or (ii) upon conversion, exchange or exercise of any other Company Security in accordance with the terms of such Company Security or the instrument governing such Company Security providing for the conversion, exchange or exercise as approved by the Board of Directors, for the consideration therefor set forth in the applicable agreement and approved by the Board of Directors, which consideration shall not be less than the par value of the Common Stock, such shares of Common Stock, including the shares of Common Stock that form a part of any Units, will be validly issued, fully paid and non-assessable.

(2) With respect to shares of any series of Preferred Stock, when all necessary corporate action of the Company has been taken to approve an issuance of shares of Preferred Stock and the terms of the shares of such series, including the adoption of a certificate of designation or amendment to the Certificate of Incorporation fixing and determining the terms of such Preferred Stock conforming to the Delaware General Corporation Law, the filing of a certificate or amendment, as applicable, with the Secretary of State of the State of Delaware, the payment in full of any filing fees attendant thereto, and the due reservation of any Common Stock and Preferred Stock for issuance, and certificates representing the shares of the series of Preferred Stock have been duly executed, countersigned, registered and delivered, either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board of Directors, upon payment of the consideration therefor (which consideration shall not be less than the par value of the Preferred Stock) provided for in such definitive purchase, underwriting or similar agreement, as applicable, or (ii) upon conversion, exchange or exercise of any other Company Security in accordance with the terms of such Company Security or the instrument governing such Company Security providing for the conversion, exchange or exercise as approved by the Board of Directors, for the consideration approved by the Board of Directors, which consideration shall not be less than the par value of the Preferred Stock, the shares of such series of Preferred Stock, including the shares of Preferred Stock that form a part of any Units, will be validly issued, fully paid and non-assessable.

(3) With respect to any series of Debt Securities, when (a) the Indenture and the applicable supplement, if any, to the Indenture have been duly authorized and validly executed and delivered by the Company and any Trustee named in the Prospectus relating to such series, (b) the Indenture, as then and theretofore amended or supplemented, has been duly qualified under the Trust Indenture Act of 1939, as amended (the “TIA”), (c) the Company has taken all necessary corporate action to authorize and approve the issuance and terms of such series of Debt Securities, (d) the terms of such Debt Securities and of their issuance and sale have been duly established in conformity with the applicable Indenture, and (e) such Debt Securities have been duly executed, authenticated, issued and delivered in accordance with the provisions of the Indenture and the applicable supplement, the Debt Securities of such series, including the Debt Securities that form a part of any Units, will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

(4) With respect to Warrants to be issued under a Warrant Agreement, when all necessary corporate action of the Company has been taken to approve the issuance and terms of such Warrants, the terms of the offering thereof and related matters, the Warrant Agreement has been duly executed and delivered by the Company, and such Warrants have been duly executed, issued and delivered in accordance with the terms of the Warrant Agreement and the applicable definitive purchase, underwriting or similar agreement approved by the Board of Directors, upon payment (or delivery) of the consideration therefor provided for therein, such Warrants, including the Warrants that form a part of any Units, will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

(5) With respect to Subscription Rights to be issued under a Subscription Rights Agreement, when all necessary corporate action of the Company has been taken to approve the issuance and terms of such Subscription Rights, the terms of the offering thereof and related matters, the Subscription Rights Agreement has been duly executed and delivered by the Company, and such Subscription Rights have been duly executed, issued and delivered in accordance with the terms of the Subscription Rights Agreement and the applicable definitive purchase, underwriting or similar agreement approved by the Board of Directors of the Company, upon payment (or delivery) of the consideration therefor provided for therein, such Subscription Rights, including the Subscription Rights that form a part of any Units, will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

(6) With respect to the Units, when all necessary corporate action of the Company has been taken to approve and establish the terms of the Units and to authorize and approve the issuance of the Company Securities comprising the Units, the terms of the offering and related matters, the Unit Purchase Agreement has been duly authorized, validly executed and delivered by the parties thereto, and the Units and/or the Company Securities comprising the Units have been duly executed and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board of Directors, upon payment of the consideration provided therefor in the definitive purchase, underwriting or similar agreement as applicable and approved by the Board of Directors, which consideration shall not be less than the aggregate par value of any Common Stock and/or Preferred Stock included in the Units, the Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

Our opinions are subject to the effect of federal and state bankruptcy, insolvency, reorganization, arrangement, moratorium, fraudulent conveyance and other laws relating to or affecting the rights of secured or unsecured creditors generally (or affecting the rights of only creditors of specific types of debtors), with respect to which we express no opinion.

Our opinions are subject to the effect of general principals of equity, whether applied by a court of law or equity, including, without limitation, concepts of materiality, good faith and fair dealing and upon the availability of injunctive relief or other equitable remedies, and the application of principles of equity (regardless of whether enforcement is considered in proceedings at law or in equity).

We express no opinion as to the laws of any jurisdiction other than (i) the corporate laws of the State of Delaware (including the Delaware General Corporation Law and applicable provisions of the Delaware constitution, but excluding local laws), (ii) with respect to opinion paragraphs 3 through 6, the laws of the State of New York, and (iii) the federal laws of the United States of America. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.



We hereby consent to the use of our opinion as herein set forth as an exhibit to the Registration Statement and to the use of our name under the caption "Legal Matters" in the prospectus forming a part of the Registration Statement. We further consent to the incorporation by reference of this opinion into any registration statement filed pursuant to Rule 462(b) under the Securities Act with respect to additional Company Securities. We do not, by giving any such consent, admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,
/s/ Dentons US LLP

Dentons US LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this 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
May 9, 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 or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.0001 par value per share (1)						
	Equity	Preferred Stock, \$0.0001 par value per share (1)						
	Debt	Debt Securities						
	Other	Warrants						
	Other	Units						
	Other	Rights						
	Unallocated (Universal) Shelf		457(o)	(2)	(3)	\$ 50,000,000	\$ 0.0001102	\$ 5,510(4)
Fees Previously Paid	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Carry Forward Securities	N/A	N/A	N/A	N/A		N/A		
						Total Offering Amounts	\$ 50,000,000	\$ 5,510
						Total Fees Previously Paid		—
						Total Fee Offsets		—
						Net Fee Due		\$ 5,510

- (1) Includes rights to acquire common stock or preferred stock under any shareholder rights plan then in effect, if applicable under the terms of any such plan.
- (2) An unspecified number of securities or aggregate principal amount, as applicable, is being registered as may from time to time be offered at unspecified prices and, in addition, an unspecified number of additional shares of common stock is being registered as may be issued from time to time upon conversion of any debt securities that are convertible into common stock or pursuant to any anti-dilution adjustments with respect to any such convertible debt securities.
- (3) Estimated solely for the purpose of calculating the registration fee. No separate consideration will be received for shares of common stock that are issued upon conversion of debt securities or preferred stock or upon exercise of common stock warrants registered hereunder. The aggregate maximum offering price of all securities issued pursuant to this registration statement will not exceed \$50,000,000.
- (4) The registration fee has been calculated in accordance with Rule 457(o) under the Securities Act of 1933, as amended.