

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

FORM S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

VAXXINITY, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

86-2083865
(I.R.S. Employer Identification Number)

505 Odyssey Way
Merritt Island, Florida 32953
(254) 244-5739
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Mei Mei Hu
Chief Executive Officer
Vaxxinity, Inc.
505 Odyssey Way
Merritt Island, Florida 32953
(254) 244-5739
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copy to:
Yasin Keshvargar
Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, NY 10017
(212) 450-4000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective. If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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

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, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period 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, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

Vaxxinity, Inc. (the "Company") is filing this registration statement, which contains two prospectuses:

- a base prospectus that covers the offering and sale of up to \$300,000,000 of the Company's Class A common stock, preferred stock, debt securities, warrants, subscription rights and units; and
- a sales agreement prospectus supplement that covers the offering and sale of up to \$100,000,000 of the Company's Class A common stock that may be sold under the Open Market Sale AgreementSM (the "sales agreement") between the Company and Jefferies LLC dated August 9, 2023.

The base prospectus immediately follows this explanatory note. The sales agreement prospectus supplement immediately follows the base prospectus. The Class A common stock that may be offered and sold pursuant to the sales agreement prospectus supplement is included in the \$300,000,000 of securities that may be offered and sold by the Company pursuant to the base prospectus. Any portion of the \$100,000,000 included in the sales agreement prospectus supplement that remains unsold pursuant to the sales agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement.

The information contained in this prospectus is not complete and may be changed. These securities may not be sold 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 jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED August 9, 2023

PROSPECTUS



\$300,000,000

**CLASS A COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
SUBSCRIPTION RIGHTS
UNITS**

We may offer from time to time, in one or more offerings, up to \$300,000,000 of any combination of the following securities: Class A common stock, preferred stock, debt securities, warrants, subscription rights and units (collectively, the "securities"). We may offer and sell these securities at times, in amounts, at prices and on terms to be determined at or prior to the time of each offering. The specific terms of these securities and information regarding the offering in which these securities will be offered will be provided in supplements to this prospectus. The prospectus supplements may also add, update or change the information contained in this prospectus. You should read this prospectus and any applicable prospectus supplement carefully before you invest.

Our Class A common stock is listed on the Nasdaq Global Market ("Nasdaq") under the symbol "VAXX."

As of the date of this prospectus, we are an "emerging growth company" as defined under the U.S. federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and the documents incorporated by reference in this prospectus.

Investing in our securities involves certain risks. See the "Risk Factors" section beginning on page 4 of this prospectus, in any applicable prospectus supplement and in our Securities and Exchange Commission ("SEC") filings that are incorporated by reference in this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved 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.

TABLE OF CONTENTS

	<u>Page</u>
Vaxxinity, Inc.	1
Special Note on Forward-Looking Statements	2
Risk Factors	4
Use of Proceeds	5
Description of Capital Stock	6
Description of Debt Securities	13
Description of Warrants	15
Description of Subscription Rights	16
Description of Units	17
Forms of Securities	18
Plan of Distribution	20
Validity of Securities	22
Experts	22
Where You Can Find More Information	23

This prospectus is part of a registration statement that we filed with the SEC utilizing a “shelf” registration process. Under this shelf registration process, we may offer from time to time, in one or more offerings, up to \$300,000,000 of the securities described in this prospectus. This prospectus provides you with a general description of the securities that we may offer. Each time we offer and sell securities, we will provide a prospectus supplement accompanied by this prospectus. The prospectus supplements will contain the specific terms of the securities being offered and information regarding the offering in which the securities are offered. The prospectus supplements may also add, update or change the information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the heading “Where You Can Find More Information.”

The information contained in this prospectus, any applicable prospectus supplement, any related free writing prospectus and any document incorporated by reference in this prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus or the sale of any securities. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

We have not authorized anyone to provide you with information that is different from that contained in this prospectus, any amendment or supplement to this prospectus, or any free writing prospectus that we may authorize to be delivered or made available to you. We take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful.

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to “Vaxxinity,” the “Company,” “we,” “us” and “our” refer to Vaxxinity, Inc. and its consolidated subsidiaries.

VAXXINITY, INC.

We are a purpose-driven biotechnology company committed to democratizing healthcare across the globe. Our vision is to disrupt the existing treatment paradigm for chronic diseases, increasingly dominated by drugs, particularly monoclonal antibodies (“mAbs”), which suffer from prohibitive costs and cumbersome administration. We believe our synthetic peptide vaccine platform (“Vaxxine Platform”) has the potential to enable a new class of therapeutics that will improve the quality and convenience of care, reduce costs and increase access to treatments for a wide range of indications. Our Vaxxine Platform is designed to harness the immune system to convert the body into its own “drug factory,” stimulating the production of antibodies with a therapeutic or protective effect. While traditional vaccines have been able to leverage this approach against infectious diseases, they have historically been unable to resolve key challenges in the fight against chronic diseases. We believe our Vaxxine Platform has the potential to overcome these challenges and has the potential to bring the efficiency of vaccines to a whole new class of medical conditions. Specifically, our technology is designed to use synthetic peptides to mimic and optimally combine biological epitopes in order to selectively activate the immune system, producing highly specific antibodies against only the desired targets, including self-antigens, making possible the safe and effective treatment of chronic diseases by vaccines. The modular and synthetic nature of our Vaxxine Platform generally provides significant speed and efficiency in candidate development and has generated multiple product candidates that we are designing to have safety and efficacy equal to or greater than the standard-of-care treatments for many chronic diseases, with more convenient administration and meaningfully lower costs. Our current pipeline consists of five chronic disease product candidates from early to late-stage development across multiple therapeutic areas, including Alzheimer’s Disease (“AD”), Parkinson’s Disease (“PD”), migraine and hypercholesterolemia. Additionally, we believe our Vaxxine Platform may be used to disrupt the treatment paradigm for a wide range of other chronic diseases, including any that are or could potentially be successfully treated by mAbs. We also will opportunistically pursue infectious disease treatments. When the COVID-19 pandemic struck the world in March 2020, we quickly reallocated resources to develop a vaccine candidate. We have assembled an industry-leading team with extensive experience developing and commercializing successful drugs that is committed to realizing our mission of democratizing healthcare.

Our principal executive offices are located at 505 Odyssey Way, Merritt Island, Florida 32953, and our telephone number is (254) 244-5739. Our website address is www.vaxxinity.com. Information on, or accessible through, our website is not part of this prospectus, nor is such content incorporated by reference in this prospectus, and should not be relied upon in determining whether to make an investment in our securities.

SPECIAL NOTE ON FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference in this prospectus, contains forward-looking statements within the meaning of Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the "Securities Act"). Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies and other future conditions. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "estimate," "expect," "intend," "may," "predict," "project," "target," "potential," "seek," "will," "would," "could," "should," "continue," "contemplate," "plan," other words and terms of similar meaning and the negative of these words or similar terms.

All forward-looking statements speak only as of the date on which they are made. Forward-looking statements are subject to known and unknown risks and uncertainties, many of which may be beyond our control. We caution you that forward-looking statements are not guarantees of future performance or outcomes and that actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements. Factors that could cause actual results and outcomes to differ materially from those reflected in forward-looking statements include, among others, the following: the prospects of our product candidates, including the progress, number, scope, cost, results and timing of data from our development activities, preclinical trials and clinical trials for our product candidates or programs, such as the target indication(s) for development or approval, the size, design, population, conduct, cost, objective or endpoints of any clinical trial, or the timing for initiation or completion of or availability of results from any clinical trial, for submission, review or approval of any regulatory filing, or for meeting with regulatory authorities; the potential benefits that may be derived from any of our product candidates; the timing of and our ability to obtain and maintain regulatory approval for our existing product candidates, any product candidates that we may develop, and any related restrictions, limitations, or warnings in the label of any approved product candidates; our ability to develop and commercialize new products and product candidates; our ability to leverage our Vaxxine Platform; the rate and degree of market acceptance of our products and product candidates; estimates of our addressable market and market growth, and expectations about market trends; our future operations, financial position, revenue, costs, expenses, uses of cash, capital requirements, our needs for additional financing or the period for which our existing cash resources will be sufficient to meet our operating requirements; our ability to comply with legal and regulatory requirements relating to privacy, tax, anti-corruption and other applicable laws; our ability to hire and retain key personnel and to manage our future growth effectively; our ability to access capital on acceptable terms in a rising interest rate and tighter credit environment; competitive companies and technologies within our industry and our ability to compete; our and our collaborators', including United Biomedical's ("UBI"), ability and willingness to obtain, maintain, defend and enforce our intellectual property protection for our proprietary and collaborative product candidates, and the scope of such protection; the performance of third-party suppliers and manufacturers and our ability to find additional suppliers and manufacturers and obtain alternative sources of raw materials; our ability and the potential to successfully manufacture our product candidates for pre-clinical use, for clinical trials and, if approved, on a larger scale for commercial use; the ability and willingness of our third-party collaborators, including UBI, to continue research and development activities relating to our product candidates and our ability to attract additional collaborators with development, regulatory and commercialization expertise; general economic, political, demographic and business conditions in the United States, Taiwan and other jurisdictions where we conduct business or clinical trials; the potential effects of government regulation, including regulatory developments in the United States and other jurisdictions; ability to obtain additional financing in future offerings or otherwise; the effects of the Russia-Ukraine conflict and the COVID-19 pandemic on business operations and the initiation, development and operation of our clinical trials, including patient enrollment of our clinical trials; and our strategies, prospects, plans, expectations, forecasts or objectives.

These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements and information included in this prospectus, including our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. New risk factors emerge from time to time, and it is not possible to predict all such risk factors, nor

can we assess the impact of all such risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statement. Undue reliance should not be placed on these forward-looking statements. We do not undertake any obligation to make any revisions to these forward-looking statements to reflect events or circumstances after the date on which such statements were made or to reflect the occurrence of unanticipated events, except as required by law.

RISK FACTORS

Investing in our securities involves risk. Before making a decision to invest in our securities, you should carefully consider the risks described under "Risk Factors" in the applicable prospectus supplement and in our most recent Annual Report on Form 10-K, and any updates to those risk factors in our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, together with all of the other information appearing or incorporated by reference in this prospectus, in light of your particular investment objectives and financial circumstances. Although we discuss key risks in our discussion of risk factors, new risks may emerge in the future, which may prove to be significant. We cannot predict future risks or estimate the extent to which they may affect our business, results of operations, financial condition and prospects.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, the net proceeds from our sale of securities will be used for general corporate purposes, including working capital, acquisitions, retirement of debt and other business opportunities.

DESCRIPTION OF CAPITAL STOCK

The following summary describes the material terms of our capital stock, does not purport to be complete and is qualified in its entirety by reference to our amended and restated certificate of incorporation (our "Charter") and our amended and restated bylaws (our "Bylaws"), copies of which have been filed as exhibits to the registration statement of which this prospectus forms a part, and applicable provisions of the Delaware General Corporation Law (the "DGCL").

Authorized Capital Stock

Our authorized capital stock consists of 1,000,000,000 shares of Class A common stock, par value \$0.0001 per share; 100,000,000 shares of Class B common stock, par value \$0.0001 per share; and 50,000,000 shares of preferred stock, par value \$0.0001 per share.

Common Stock

We have two classes of common stock: Class A common stock and Class B common stock. Holders of Class A common stock and Class B common stock have identical rights, except with respect to voting and conversion.

Voting Rights. Except as otherwise expressly provided in our Charter or Bylaws or required by applicable law and subject to the rights of any preferred stock, holders of Class A common stock are entitled to one vote per share on all matters submitted to a vote of stockholders and holders of Class B common stock are entitled to ten votes per share on all matters submitted to a vote of stockholders. Our common stockholders are not entitled to cumulative voting in the election of directors. Unless a different vote is required by applicable law or specifically required by our Charter or Bylaws, if a quorum exists at any meeting of stockholders, stockholders shall have approved any matter (other than as described below) if such matter is approved by the affirmative vote of the majority of voting power of share capital present in person or represented by proxy and entitled to vote on such matter. Subject to the rights of any preferred stock to elect directors, if a quorum exists at any meeting of stockholders, stockholders shall have approved the election of a director if such director is elected by a plurality of the votes cast. Holders of Class A common stock and Class B common stock vote together as a single class on all matters submitted to a vote of stockholders, except (i) if we were to seek to amend our Charter to increase or decrease the par value of a class of our capital stock, then that class would be required to vote separately to approve the proposed amendment and (ii) if we were to seek to amend our Charter in a manner that alters or changes the powers, preferences or special rights of a class of our capital stock in a manner that affected its holders adversely, then that class would be required to vote separately to approve the proposed amendment.

Dividend Rights. Subject to preferences of any preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by our board of directors out of funds legally available therefor if our board of directors, in its discretion, determines to issue dividends and only then at the times and in the amounts that our board of directors may determine.

Rights upon Liquidation. Upon liquidation, dissolution or winding-up of the Company, holders of common stock are entitled to receive their ratable share of the net assets of the Company available after payment of all debts and other liabilities, subject to the prior preferential rights and payment of liquidation preferences, if any, of any preferred stock.

Conversion Rights. Each share of Class B common stock is convertible at any time at the option of the holder into one share of Class A common stock. In addition, each share of Class B common stock will automatically convert into one share of Class A common stock upon any transfer, whether or not for value and whether voluntary or involuntary or by operation of law, except for transfers to trusts solely for the benefit of the stockholder and certain related entities, transfers to partnerships, corporations and other entities exclusively owned by the stockholder or certain related entities, transfers to family members of the stockholder and transfers between certain stockholders. Holders of Class A common stock have no conversion rights.

Other Rights. Holders of common stock have no preemptive, subscription or redemption rights. There are no redemption or sinking fund provisions applicable to our common stock.

Preferred Stock

Our board of directors has the authority, subject to limitations imposed by Delaware law or Nasdaq listing standards, without any further vote or action by our stockholders, to issue preferred stock in one or more series and to fix the designations, powers, preferences, limitations and rights of each series, including dividend rates, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting each series. Satisfaction of any dividend preferences of outstanding preferred stock would reduce the amount of funds available for the payment of dividends on Class A common stock. Holders of preferred stock may be entitled to receive a preference payment in the event of our liquidation, dissolution or winding-up before any payment is made to the holders of Class A common stock. Our board of directors may authorize the issuance of preferred stock with voting and conversion rights that could adversely affect the voting power or other rights of the holders of Class A common stock.

The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock, and may adversely affect the market price of Class A common stock and the voting and other rights of the holders of Class A common stock. See “—Certain Anti-Takeover Provisions of our Charter, our Bylaws and Delaware Law.”

When we offer to sell a particular series of preferred stock, we will describe the specific terms of the securities in a supplement to this prospectus. The preferred stock will be issued under a certificate of designations relating to each series of preferred stock and is also subject to our Charter.

Voting Agreement

Our co-founders (Mei Mei Hu and Louis Reese), one of their affiliates and United Biomedical, Inc. (collectively our “principal stockholders”) entered into a voting agreement on October 1, 2021 (the “Voting Agreement”). We are not a party to the Voting Agreement. The Voting Agreement provides the proxyholder, Ms. Hu, with the authority (and irrevocable proxies) to direct the vote and vote the shares of capital stock held by the principal stockholders at her discretion on all matters to be voted upon by stockholders. The Voting Agreement does not restrict any of the principal stockholders from transferring any shares of our capital stock and, if any such shares of capital stock are transferred, there is no obligation for the transferee to join the Voting Agreement (unless the transferee is an affiliate or family member (or an entity or trust whose beneficial owner or primary beneficiary is a family member) of one of the parties to the Voting Agreement).

Mr. Reese will replace Ms. Hu as the proxyholder under the Voting Agreement upon the earliest of (i) Ms. Hu’s death, (ii) a determination by a court of competent jurisdiction in a final non-appealable order that Ms. Hu is permanently and totally disabled and unable to engage in any substantial gainful activity due to a medically determinable physical or mental impairment that can be expected to result in death within 12 months or which has lasted or can be expected to last for a continuous period of at least 12 months and (iii) six months after the later of Ms. Hu ceasing to be (x) Chief Executive Officer and (y) Actively Engaged (as defined below) (the “Replacement Date”); *provided* that the Replacement Date will be the date on which Ms. Hu ceases to be Actively Engaged if Ms. Hu is not then Chief Executive Officer and Ms. Hu ceases to be Actively Engaged pursuant to clause (B) of the definition of Actively Engaged below. For purposes of the Voting Agreement, “Actively Engaged” means, on the date of determination, Ms. Hu (A) is then a director of the Company and (B) has not sold, or otherwise disposed for pecuniary gain, shares of Class B common stock in excess of 65% of the Class B common stock she held on the date of the Voting Agreement.

The Voting Agreement will terminate upon the earliest to occur of the following: (i) the liquidation, dissolution or winding up of the Company; (ii) the execution by the Company of a general assignment for

the benefit of creditors or the appointment of a receiver or trustee to take possession of the property and assets of the Company; (iii) the unilateral decision of the then current proxyholder (in such person's sole discretion) to terminate the Voting Agreement, subject to a 30-day notice period; (iv) on the Replacement Date, if Mr. Reese is then (x) deceased, (y) determined by a court of competent jurisdiction in a final non-appealable order to be permanently and totally disabled and unable to engage in any substantial gainful activity due to a medically determinable physical or mental impairment that can be expected to result in death within 12 months or which has lasted or can be expected to last for a continuous period of at least 12 months or (z) not a director of the Company; or (v) after the Replacement Date, upon the earliest to occur of (x) Mr. Reese's death, (y) a determination by a court of competent jurisdiction in a final non-appealable order that Mr. Reese is permanently and totally disabled and unable to engage in any substantial gainful activity due to a medically determinable physical or mental impairment that can be expected to result in death within 12 months or which has lasted or can be expected to last for a continuous period of at least 12 months or (z) Mr. Reese ceasing to be director of the Company.

The foregoing summary does not purport to be complete and is qualified in its entirety by reference to the Voting Agreement, a copy of which has been filed as an exhibit to our most recent Annual Report on Form 10-K.

Certain Anti-Takeover Provisions of our Charter, our Bylaws and Delaware Law

Certain provisions of our Charter, our Bylaws and the DGCL may discourage or make more difficult a takeover attempt that a stockholder might consider to be in his, her or its best interest. These provisions may also adversely affect the prevailing market price for our Class A common stock. We believe that the benefits of increased protection give us the potential ability to negotiate with the proponent of an unsolicited proposal to acquire or restructure us, which may result in an improvement of the terms of any such proposal in favor of our stockholders, and outweigh any potential disadvantage of discouraging those proposals.

Authorized but Unissued Shares of Capital Stock

Our authorized but unissued common stock and preferred stock are available for future issuance without stockholder approval, subject to the applicable provisions of the DGCL and Nasdaq listing standards. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. One of the effects of the existence of authorized but unissued common stock or preferred stock may be to enable our board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of the Company by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive our stockholders of opportunities to sell their Class A common stock at a price higher than the prevailing market price.

Board Vacancies and Board Size

Our Charter provides that, subject to the rights of any preferred stock, any vacancies, including any newly created directorships, on our board of directors will be filled by the affirmative vote of a majority of the remaining directors then in office, even if such directors constitute less than a quorum, or by a sole remaining director. In addition, the number of directors constituting our board of directors is exclusively to be set by a resolution adopted by a majority vote of our entire board of directors. These provisions prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors and promotes continuity of management.

No Cumulative Voting

Under the DGCL, stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our Charter does not provide for cumulative voting.

Stockholder Action by Written Consent and Special Meetings of Stockholders

Our Charter and Bylaws provide that our stockholders may take action by written consent so long as the Voting Agreement is in effect and our principal stockholders hold a majority of the voting power of then-outstanding shares of our capital stock. Our Charter and Bylaws further provide that special meetings of our stockholders may be called only by the chairperson of our board of directors, the lead independent director, our board of directors pursuant to a written resolution adopted by the affirmative vote of the majority of the total numbers of directors assuming no vacancies or, so long as the Voting Agreement is in effect and our principal stockholders hold a majority of the voting power of then-outstanding shares of our capital stock, the corporate secretary upon the written request of holders of a majority of the voting power of all then-outstanding shares of capital stock. These provisions may delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our Bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors at our annual meeting of stockholders, and also specify certain procedural requirements regarding the form, content and timing of such notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

Amendments to Our Charter and Bylaws

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation or bylaws, unless the corporation's certificate of incorporation requires a greater percentage. Our Charter provides that at any time the Voting Agreement is not in effect or our principal stockholders do not hold a majority of the voting power of then-outstanding shares of our capital stock, certain specified provisions in our Charter, including provisions relating to the size of the board, classification of the board, removal of directors, special meetings, actions by written consent and cumulative voting, may be amended, altered, rescinded or repealed only by the affirmative vote of the holders of at least 66 2/3% in voting power of all the then outstanding shares of our capital stock entitled to vote thereon, voting together as a single class. Our Charter provides that our board of directors is expressly authorized to amend, alter, rescind or repeal, in whole or in part, or add to, our Bylaws without a stockholder vote in any manner not inconsistent with the laws of the State of Delaware or our Charter. Our Charter provides that at any time the Voting Agreement is not in effect or our principal stockholders do not hold a majority of the voting power of then-outstanding shares of our capital stock, any amendment, alteration, rescission or repeal, in whole or in part, of, or addition to, our Bylaws by our stockholders requires the affirmative vote of the holders of at least 66 2/3% in voting power of all the then-outstanding shares of our capital stock entitled to vote thereon, voting together as a single class.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for three years following the date that such stockholder became an interested stockholder, unless:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation

outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (1) persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include, among other things, mergers, asset and stock sales and other transactions resulting in a financial benefit to an interested stockholder. An “interested stockholder” is a person who, together with its affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation’s outstanding voting stock.

Dissenters’ Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation in which we are a constituent entity. Pursuant to the DGCL, stockholders who properly demand and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery, if any, on the amount determined to be the fair value, from the effective time of the merger or consolidation through the date of payment of the judgment.

Stockholders’ Derivative Actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder’s stock thereafter devolved by operation of law. To bring such an action, the stockholder must otherwise comply with Delaware law regarding derivative actions.

Exclusive Forum

Our Charter requires, to the fullest extent permitted by law, that (1) any derivative action or proceeding brought on behalf of the Company, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, other employees or our stockholders to us or our stockholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, our Charter or our Bylaws, or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, (4) any action to interpret, apply, enforce or determine the validity of our Charter or Bylaws and (5) any action asserting a claim against us that is governed by the internal affairs doctrine, in each case, may be brought only in the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the United States District Court for the District of Delaware). This provision will not apply to suits brought to enforce any duty or liability created by the Securities Act, the Exchange Act or any other claim for which there is exclusive federal or concurrent federal and state jurisdiction.

Our Charter also provides that the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action against us or any of our directors, officers, employees or agents and arising under the Securities Act. However, Section 22 of the Securities Act provides that federal and state courts have concurrent jurisdiction over lawsuits brought pursuant to the Securities Act or the rules and regulations thereunder. To the extent the exclusive forum provision restricts the courts in which claims arising under the Securities Act may be brought, there is uncertainty as to whether a court would enforce such a provision. Our Charter also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be

deemed to have notice of and to have consented to the foregoing provision; *provided, however*, that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

We recognize that the forum selection clause in our Charter may impose additional litigation costs on stockholders in pursuing any such claims, particularly if the stockholders do not reside in or near the State of Delaware. Additionally, the forum selection clause in our Charter may limit our stockholders' ability to bring a claim in a forum that they find favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and our directors, officers, employees and agents even though an action, if successful, might benefit our stockholders. The Court of Chancery of the State of Delaware may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

Limitation of Liability and Indemnification of Directors and Officers

Our Charter includes provisions that limit the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors, except to the extent that such limitation is not permitted under the DGCL. Such limitation shall not apply, except to the extent permitted by the DGCL, to (1) any breach of a director's duty of loyalty to us or our stockholders, (2) acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (3) any unlawful payment of a dividend or unlawful stock repurchase or redemption, as provided in Section 174 of the DGCL or (4) any transaction from which a director derived an improper personal benefit. These provisions will have no effect on the availability of equitable remedies such as an injunction or rescission based on a director's breach of his or her duty of care. Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal.

Our Bylaws provide for indemnification, to the fullest extent permitted by the DGCL, of any person made or threatened to be made a party to any action, suit or proceeding by reason of the fact that such person is or was a director, officer, employee or agent of the Company, or, at the request of the Company, serves or served as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or any other enterprise, against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with the defense or settlement of such action, suit or proceeding. In addition, we have entered into indemnification agreements with each of our directors pursuant to which we have agreed to indemnify each such director to the fullest extent permitted by the DGCL.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

Registration Rights

We and certain of our stockholders entered into a Registration Rights Agreement on November 15, 2021 (the "Registration Rights Agreement") pursuant to which such stockholders have specified rights to require us to register all or a portion of their shares of Class A common stock (including shares received upon conversion of shares of Class B common stock) under the Securities Act.

The registration rights will terminate upon the earlier of (i) with respect to any stockholder who then holds less than five percent of the then-outstanding common stock, such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such stockholder's shares without limitation and without regard to the availability of current public information and (ii) four years following our initial public offering. We will generally pay the registration expenses (other than underwriting discounts and selling commissions), including the reasonable fees and disbursements, not to exceed \$50,000 of one counsel, of the holders of the securities registered pursuant to the registrations described below.

S-1 Registration Rights. The holders of a majority of the registrable securities then outstanding may make a written request that we register the offer and sale of their shares on a registration statement on Form S-1. Such request for registration must cover at least 30% of the registrable securities then outstanding. We are obligated to effect only one such registration and we are not required to effect a registration on Form S-1 if such registrable securities may be registered on Form S-3 as described below. In an underwritten public offering, the underwriters have the right, subject to specified conditions, to limit the number of shares that such holders may include for registration.

S-3 Registration Rights. The holders of at least 20% of the registrable securities then outstanding may make a written request that we register the offer and sale of their shares on a registration statement on Form S-3 if we are eligible to file a registration statement on Form S-3, so long as the request covers securities the anticipated aggregate offering price of which, net of underwriting discounts, selling commissions and other selling expenses, is at least \$3.0 million. These stockholders may make an unlimited number of requests for registration on Form S-3; *provided, however*, we are not required to effect a registration on Form S-3 if we have effected two such registrations within the 12-month period preceding the date of the request. In an underwritten public offering, the underwriters have the right, subject to specified conditions, to limit the number of shares that such holders may include for registration.

Piggyback Registration Rights. If we propose to register the offer and sale of our common stock under the Securities Act in connection with the public offering of such common stock solely for cash, the holders of registrable securities will be entitled to certain "piggyback" registration rights allowing the holders to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to (i) a registration related to the sale or grant of securities to our employees or a subsidiary's employees pursuant to a stock option, stock purchase, equity incentive or similar plan, (ii) a registration relating to a Rule 145 transaction, (iii) a registration on any registration form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of registrable securities or (iv) a registration in which the only common stock being registered is common stock issuable upon conversion of debt securities that are also being registered, the holders of registrable securities are entitled to notice of the registration and have the right, subject to certain limitations, to include their shares in the registration. We have the right to terminate or withdraw any registration initiated pursuant to such "piggyback registration" rights described above before the effective date of such registration, whether or not any stockholder has elected to include shares of their common stock in such registration. In an underwritten public offering, the underwriters have the right, subject to specified conditions, to limit the number of shares that such holders may include for registration.

The foregoing summary does not purport to be complete and is qualified in its entirety by reference to the Registration Rights Agreement, a copy of which has been filed as an exhibit to our most recent Annual Report on Form 10-K.

Listing

Our Class A common stock is listed on Nasdaq under the symbol "VAXX."

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities, which may be secured or unsecured and may be exchangeable for and/or convertible into other securities, including our Class A common stock. The debt securities will be issued under one or more separate indentures between us and a designated trustee. The terms of each series of debt securities being offered, including the terms, if any, on which a series of debt securities may be convertible into or exchangeable for other securities, and the material terms of the indenture will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates on which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than denomination of \$1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated debt securities or global debt securities;
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;
- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denominations, the manner in which exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies, or by reference to a commodity, commodity index, stock exchange index, or financial index, then the manner in which such amounts will be determined;

- the provisions, if any, relating to any collateral provided for such debt securities;
- any events of default;
- the terms and conditions, if any, for conversion into or exchange for common stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents, or other agents; and
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of our company.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will describe the following terms of any warrants in respect of which this prospectus is being delivered:

- the title of such warrants;
- the aggregate number of such warrants;
- the price or prices at which such warrants will be issued;
- the currency or currencies in which the price of such warrants will be payable;
- the securities or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing, purchasable upon exercise of such warrants;
- the price at which and the currency or currencies in which the securities or other rights purchasable upon exercise of such warrants may be purchased;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- if applicable, the designation and terms of the securities with which such warrants are issued and the number of such warrants issued with each such security;
- if applicable, the date on and after which such warrants and the related securities will be separately transferable;
- information with respect to book-entry procedures, if any;
- if applicable, a discussion of any material United States Federal income tax considerations; and
- any other terms of such warrants, including terms, procedures and limitations relating to the exchange and exercise of such warrants.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase our securities. The subscription rights may be issued independently or together with any other securities, may be attached to, or separate from, such securities and may or may not be transferable by the shareholder receiving the subscription rights. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any unsubscribed securities after such offering. The terms of any subscription rights being offered will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will set forth the following terms of the subscription rights in respect of which this prospectus is delivered:

- the exercise price;
- the aggregate number of rights to be issued;
- the type and number of securities purchasable upon exercise of each right;
- the procedures and limitations relating to the exercise of the rights;
- the date upon which the exercise of rights will commence;
- the record date, if any, to determine who is entitled to the rights;
- the expiration date;
- the extent to which the rights are transferable;
- information regarding the trading of rights, including the stock exchanges, if any, on which the rights will be listed;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities;
- if appropriate, a discussion of material U.S. federal income tax considerations;
- if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of the rights; and
- any other material terms of the rights.

If fewer than all of the subscription rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than shareholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

DESCRIPTION OF UNITS

We may issue units consisting of one or more warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities. The terms of any units being offered will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will set forth the following terms of the units in respect of which this prospectus is delivered:

- the terms of the units and of the warrants, debt securities and common stock comprising the units, including whether and under what circumstances the securities comprising the units may be traded separately;
- a description of the terms of any unit agreement governing the units; and
- a description of the provisions for the payment, settlement, transfer or exchange of the units.

FORMS OF SECURITIES

Each debt security, warrant and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Global Securities

We may issue the registered debt securities, warrants and units in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires

to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants, guaranteed trust preferred securities or units, represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of the Company, the trustees, the warrant agents, the unit agents or any other agent of the Company, agent of the trustees or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Securities Exchange Act of 1934 is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depositary. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus from time to time in one or more transactions, including, without limitation:

- through underwriters or dealers;
- directly to a limited number of purchasers or to a single purchaser;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, into an existing trading market on an exchange or otherwise;
- through agents; or
- through any other method permitted by applicable law and described in the applicable prospectus supplement.

A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including, without limitation, warrants, exchangeable securities, forward delivery contracts and the writing of options.

The prospectus supplement will state the terms of the offering of the securities, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of such securities and the proceeds to be received by us, if any;
- any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed.

Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

If underwriters are used in the sale, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- negotiated transactions;
- at a fixed public offering price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to prevailing market prices; or
- at negotiated prices.

Unless otherwise stated in a prospectus supplement, the obligations of the underwriters to purchase any securities will be conditioned on customary closing conditions and the underwriters will be obligated to purchase all of such series of securities, if any are purchased.

The securities may be sold through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions paid to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

Sales to or through one or more underwriters or agents in “at the market offerings” will be made pursuant to the terms of a distribution agreement with the underwriters or agents. Such underwriters or agents may act on an agency basis or on a principal basis. During the term of any such agreement, shares may be sold on a daily basis on any stock exchange, market or trading facility on which the Class A common stock are traded, in privately negotiated transactions or otherwise as agreed with the underwriters or agents. The distribution agreement will provide that any common share sold will be sold at negotiated prices or at prices related to the then prevailing market prices for our Class A common stock. Therefore, exact figures regarding proceeds that will be raised or commissions to be paid cannot be determined at this time and will be described in a prospectus supplement. Pursuant to the terms of the distribution agreement, we may also agree to sell, and the relevant underwriters or agents may agree to solicit offers to purchase, blocks of our securities. The terms of each such distribution agreement will be described in a prospectus supplement.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions paid for solicitation of these contracts.

Underwriters and agents may be entitled under agreements entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the underwriters or agents may be required to make.

The prospectus supplement may also set forth whether or not underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the securities at levels above those that might otherwise prevail in the open market, including, for example, by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids.

Underwriters and agents may be customers of, engage in transactions with, or perform services for us and our affiliates in the ordinary course of business.

Each series of securities will be a new issue of securities and will have no established trading market, other than our Class A common stock, which are listed on Nasdaq. Any underwriters to whom securities are sold for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than our Class A common stock, may or may not be listed on a national securities exchange.

VALIDITY OF SECURITIES

The validity of the securities covered by this prospectus will be passed on for us by Davis Polk & Wardwell LLP, New York, New York. Additional legal matters may be passed upon for us or any underwriters, dealers or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Vaxxinity, Inc. as of December 31, 2022 and 2021, and for each of the years in the two-year period ended December 31, 2022, have been incorporated by reference herein in reliance upon the report of Armanino LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information we have filed electronically with the SEC.

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 an important 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 listed below and all documents we file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of the initial filing of the registration statement of which this prospectus forms a part and the effectiveness of such registration statement and on or after the date of this prospectus and prior to the termination of the offering under this prospectus and any prospectus supplement (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- (a) our [Annual Report on Form 10-K for the year ended December 31, 2022](#);
- (b) our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2023](#) (solely with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2022);
- (c) our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2023](#) and June 30, 2023;
- (d) our Current Reports on Form 8-K filed with the SEC on [February 3, 2023](#), [June 22, 2023](#) and [July 27, 2023](#); and
- (e) the description of our Class A common stock contained in our [Registration Statement on Form 8-A filed with the SEC on November 10, 2021](#), including any amendments or reports filed for the purposes of updating such description.

Any statement contained in this prospectus or in any document incorporated or deemed to be incorporated by reference into this prospectus will be deemed modified or superseded for the purposes of this prospectus to the extent that a statement contained in this prospectus or any subsequently filed document which also is, or is deemed to be, incorporated by reference into this prospectus modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You can obtain any of the filings incorporated by reference in this prospectus through us or from the SEC through the SEC’s website at www.sec.gov. Our filings with the SEC, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and exhibits incorporated in and amendments to those reports, are also available free of charge on our website (www.vaxxinity.com) as soon as reasonably practicable after they are filed with, or furnished to, the SEC. Information on, or accessible through, our website is not part of this prospectus, nor is such content incorporated by reference in this prospectus, and should not be relied upon in determining whether to make an investment in our securities. You can obtain any of the documents incorporated by reference into this prospectus from us without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference into those documents. You can obtain documents incorporated by reference into this prospectus by requesting them in writing or by telephone from us at the following address:

Investor Relations
Vaxxinity, Inc.
505 Odyssey Way
Merritt Island, Florida 32953
(254) 244-5739



\$300,000,000

**CLASS A COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
SUBSCRIPTION RIGHTS
UNITS**

PROSPECTUS

, 2023

The information contained in this prospectus supplement is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus supplement is 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.

SUBJECT TO COMPLETION, DATED August 9, 2023

PROSPECTUS SUPPLEMENT



Up to \$100,000,000

Class A Common Stock

We entered into an Open Market Sale AgreementSM with Jefferies LLC ("Jefferies" or the "sales agent"), dated August 9, 2023, relating to the sale of our Class A common stock, par value \$0.0001 per share, offered by this prospectus supplement and the accompanying prospectus (such agreement, the "sales agreement"). In accordance with the terms of the sales agreement, under this prospectus supplement, we may offer and sell our Class A common stock having an aggregate offering price of up to \$100,000,000 from time to time through the sales agent.

Sales of our Class A common stock, if any, under this prospectus supplement will be made by any method permitted that is deemed an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended (the "Securities Act"). The sales agent is not required to sell any specific amount, but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

The sales agent will be entitled to compensation at a commission rate of 3.0% of the gross sales price of any Class A common stock sold under the sales agreement. In connection with the sale of Class A common stock on our behalf, the sales agent will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of the sales agent will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to the sales agent with respect to certain liabilities, including civil liabilities under the Securities Act. See "Plan of Distribution" beginning on page S-10 for additional information regarding the compensation to be paid to the sales agent.

Our Class A common stock is listed on The Nasdaq Global Market ("Nasdaq") under the symbol "VAXX." On August 4, 2023, the last reported sale price of our Class A common stock on Nasdaq was \$2.56 per share.

As of the date of this prospectus supplement, we are an "emerging growth company" as defined under the U.S. federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus supplement and the documents incorporated by reference in this prospectus supplement.

Investing in our securities involves a high degree of risk. See the "Risk Factors" section beginning on page S-4 of this prospectus supplement and any risk factors in our Securities and Exchange Commission ("SEC") filings that are incorporated by reference in this 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 supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Jefferies

Prospectus supplement dated _____, 2023.

TABLE OF CONTENTS

	<u>Page</u>
Prospectus Supplement Summary	S-1
Risk Factors	S-4
Special Note on Forward-Looking Statements	S-5
Use of Proceeds	S-7
Dividend Policy	S-8
Dilution	S-9
Plan of Distribution	S-10
Validity of Securities	S-12
Experts	S-12
Where You Can Find More Information	S-13

This document consists of two parts. The first part is the accompanying prospectus, which is part of a registration statement that we filed with the SEC using a “shelf” registration process. The accompanying prospectus provides you with a general description of the securities that we may offer, some of which may not apply to this offering. The second part is this prospectus supplement, which describes the specific terms of this offering. This prospectus supplement and the information incorporated by reference in this prospectus supplement add to, update and, where applicable, change the information contained or incorporated by reference in the accompanying prospectus.

Before buying any of the securities that we are offering, you should carefully read both this prospectus supplement and the accompanying prospectus with all of the information incorporated by reference in this prospectus supplement, as well as the additional information described under the heading “Where You Can Find More Information.” These documents contain important information that you should consider when making your investment decision.

To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference in this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement, provided that 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 supplement—the statement in the document having the later date modifies or supersedes the earlier statement.

The information contained in this prospectus supplement, the accompanying prospectus or any document incorporated by reference in this prospectus supplement is accurate only as of their respective dates, regardless of the time of delivery of this prospectus, the accompanying prospectus or the documents incorporated by reference in this prospectus or in the accompanying prospectus or the sale of any securities. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Neither we nor the sale agent have authorized anyone to provide you with information that is different from that contained in this prospectus supplement, the accompanying prospectus, or any free writing prospectus we may authorize to be delivered or made available to you. Neither we nor the sales agent take responsibility for, or provide assurance as to the reliability of, any other information that others may give you. This prospectus supplement does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful.

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to “Vaxxinity,” the “Company,” “we,” “us” and “our” refer to Vaxxinity, Inc. and its consolidated subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement or incorporated by reference in this prospectus supplement. This summary may not contain all the information that may be important to you, and we urge you to read this entire prospectus supplement and the accompanying prospectus and the documents incorporated by reference in this prospectus supplement carefully before deciding to invest in our securities.

Our Company

We are a purpose-driven biotechnology company committed to democratizing healthcare across the globe. Our vision is to disrupt the existing treatment paradigm for chronic diseases, increasingly dominated by drugs, particularly monoclonal antibodies (“mAbs”), which suffer from prohibitive costs and cumbersome administration. We believe our synthetic peptide vaccine platform (“Vaxxine Platform”) has the potential to enable a new class of therapeutics that will improve the quality and convenience of care, reduce costs and increase access to treatments for a wide range of indications. Our Vaxxine Platform is designed to harness the immune system to convert the body into its own “drug factory,” stimulating the production of antibodies with a therapeutic or protective effect. While traditional vaccines have been able to leverage this approach against infectious diseases, they have historically been unable to resolve key challenges in the fight against chronic diseases. We believe our Vaxxine Platform has the potential to overcome these challenges and has the potential to bring the efficiency of vaccines to a whole new class of medical conditions. Specifically, our technology is designed to use synthetic peptides to mimic and optimally combine biological epitopes in order to selectively activate the immune system, producing highly specific antibodies against only the desired targets, including self-antigens, making possible the safe and effective treatment of chronic diseases by vaccines. The modular and synthetic nature of our Vaxxine Platform generally provides significant speed and efficiency in candidate development and has generated multiple product candidates that we are designing to have safety and efficacy equal to or greater than the standard-of-care treatments for many chronic diseases, with more convenient administration and meaningfully lower costs. Our current pipeline consists of five chronic disease product candidates from early to late-stage development across multiple therapeutic areas, including Alzheimer’s Disease (“AD”), Parkinson’s Disease (“PD”), migraine and hypercholesterolemia. Additionally, we believe our Vaxxine Platform may be used to disrupt the treatment paradigm for a wide range of other chronic diseases, including any that are or could potentially be successfully treated by mAbs. We also will opportunistically pursue infectious disease treatments. When the COVID-19 pandemic struck the world in March 2020, we quickly reallocated resources to develop a vaccine candidate. We have assembled an industry-leading team with extensive experience developing and commercializing successful drugs that is committed to realizing our mission of democratizing healthcare.

Our principal executive offices are located at 505 Odyssey Way, Merritt Island, Florida 32953, and our telephone number is (254) 244-5739. Our website address is www.vaxxinity.com. Information on, or accessible through, our website is not part of this prospectus supplement, nor is such content incorporated by reference in this prospectus supplement, and should not be relied upon in determining whether to make an investment in our securities.

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

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the “JOBS Act”). An emerging growth company may take advantage of specified exemptions from various requirements that are otherwise applicable generally to public companies in the United States. These provisions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes–Oxley Act;

- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- being required to provide only two years of audited financial statements in addition to any required unaudited interim financial statements;
- permitting an extended transition period for complying with new or revised accounting standards, which allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We have elected to take advantage of certain of the reduced disclosure obligations in this prospectus supplement and the documents incorporated by reference in this prospectus supplement and may elect to take advantage of other reduced reporting requirements in future filings. In addition, we have elected to use the extended transition period for new or revised accounting standards during the period in which we remain an emerging growth company. As a result, the information that we provide to our investors may be different from the information you might receive from other public reporting companies that are not emerging growth companies in which you hold securities.

The Offering

Common Stock Offered by Us	Class A common stock having an aggregate offering price of up to \$100,000,000.
Common Stock Outstanding Before this Offering	112,823,912 shares of Class A common stock and 13,874,132 shares of Class B common stock.
Common Stock Outstanding After this Offering	151,886,412 shares of Class A common stock and 13,874,132 shares of Class B common stock, after giving effect to the assumed sale by us of \$100,000,000 of Class A common stock at an assumed public offering price of \$2.56 per share, which was the last reported sale price of our Class A common stock on Nasdaq on August 4, 2023.
Plan of Distribution	“At the market offering” that may be made from time to time through the sales agent. See “Plan of Distribution” on page S-4 of this prospectus supplement.
Use of Proceeds	We intend to use the net proceeds from this offering, if any, to advance our existing product candidates, invest in our Vaxxine Platform and new product candidates and for general working capital, capital expenditures and other general corporate purposes. See “Use of Proceeds.”
Risk Factors	Investing in our Class A common stock involves a high degree of risk. See the “Risk Factors” section beginning on page S-4 of this prospectus supplement and in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should consider before deciding to invest in our Class A common stock.
Nasdaq Symbol	“VAXX”

Common stock outstanding before and after this offering, including as discussed under “Dilution”, is based on 112,823,912 shares of Class A common stock outstanding as of June 30, 2023 and 13,874,132 shares of Class B common stock outstanding as of June 30, 2023, and excludes:

- 1,928,020 shares of Class A common stock issuable upon the exercise of warrants outstanding as of June 30, 2023, with an exercise price of \$12.45 per share;
- 300,000 shares of Class A common stock issuable upon vesting of restricted stock units outstanding as of June 30, 2023;
- 16,022,171 shares of Class A common stock issuable upon exercise of options outstanding as of June 30, 2023, with a weighted-average exercise price of \$2.52 per share;
- 6,362,455 shares of Class B common stock issuable upon exercise of options outstanding as of June 30, 2023, with a weighted-average exercise price of \$10.07 per share;
- 6,079,959 shares of Class A common stock reserved for future issuance under our 2021 Stock Option and Grant Plan and 2021 Omnibus Incentive Compensation Plan and our 2021 Employee Stock Purchase Plan; and
- shares of Class A common stock issuable upon the conversion of Class B common stock.

RISK FACTORS

Investing in our securities involves risk. Before making a decision to invest in our securities, you should carefully consider the following risks and the risks described under "Risk Factors" in our most recent Annual Report on Form 10-K, and any updates to those risk factors in our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, together with all of the other information appearing or incorporated by reference in this prospectus supplement, in light of your particular investment objectives and financial circumstances. Although we discuss key risks in our discussion of risk factors, new risks may emerge in the future, which may prove to be significant. We cannot predict future risks or estimate the extent to which they may affect our business, results of operations, financial condition and prospects.

Risks Related to this Offering

You may experience immediate and substantial dilution in the book value of your investment.

If you purchase our Class A common stock in this offering, you will experience immediate dilution in an amount equal to the difference between the purchase price per share and our then-net tangible book value per share of common stock. See "Dilution."

The actual number of shares of Class A common stock we will sell under the sales agreement and the resulting gross proceeds is uncertain.

Subject to certain limitations in the sales agreement and compliance with applicable law, we have the discretion to deliver a placement notice to the sales agent at any time throughout the term of the sales agreement. The number of shares of Class A common stock that are sold by the sales agent after we deliver a placement notice will fluctuate based on the market price of our Class A common stock during the sales period and limits we set in the placement notice. Because the price per share sold will fluctuate based on the market price of our Class A common stock during the sales period, it is not possible to predict the number of shares of Class A common stock that will be ultimately sold or the resulting gross proceeds.

The Class A common stock offered in this offering will be sold in "at the market offerings." Investors who purchase our Class A common stock in this offering at different times will likely pay different prices.

Investors who purchase our Class A common stock in this offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and numbers of shares of Class A common stock sold, and subject to certain limitations in the sales agreement, there is no minimum or maximum sales price. Investors may experience a decline in the value of their Class A common stock and dilution as a result of sales made at prices lower than the prices they paid.

We have broad discretion in the use of the net proceeds from this offering, and we may not use them effectively.

We currently intend to use the net proceeds from this offering as described in "Use of Proceeds." However, our board of directors and our management retains broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Class A common stock. Our failure to apply these funds effectively could result in financial losses, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

SPECIAL NOTE ON FORWARD-LOOKING STATEMENTS

This prospectus supplement, including the documents incorporated by reference in this prospectus supplement, contains forward-looking statements within the meaning of Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the “Securities Act”). Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies and other future conditions. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “predict,” “project,” “target,” “potential,” “seek,” “will,” “would,” “could,” “should,” “continue,” “contemplate,” “plan,” other words and terms of similar meaning and the negative of these words or similar terms.

All forward-looking statements speak only as of the date on which they are made. Forward-looking statements are subject to known and unknown risks and uncertainties, many of which may be beyond our control. We caution you that forward-looking statements are not guarantees of future performance or outcomes and that actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements. Factors that could cause actual results and outcomes to differ materially from those reflected in forward-looking statements include, among others, the following: the prospects of our product candidates, including the progress, number, scope, cost, results and timing of data from our development activities, preclinical trials and clinical trials for our product candidates or programs, such as the target indication(s) for development or approval, the size, design, population, conduct, cost, objective or endpoints of any clinical trial, or the timing for initiation or completion of or availability of results from any clinical trial, for submission, review or approval of any regulatory filing, or for meeting with regulatory authorities; the potential benefits that may be derived from any of our product candidates; the timing of and our ability to obtain and maintain regulatory approval for our existing product candidates, any product candidates that we may develop, and any related restrictions, limitations, or warnings in the label of any approved product candidates; our ability to develop and commercialize new products and product candidates; our ability to leverage our Vaxxine Platform; the rate and degree of market acceptance of our products and product candidates; estimates of our addressable market and market growth, and expectations about market trends; our future operations, financial position, revenue, costs, expenses, uses of cash, including, any proceeds from this offering, capital requirements, our needs for additional financing or the period for which our existing cash resources will be sufficient to meet our operating requirements; our ability to comply with legal and regulatory requirements relating to privacy, tax, anti-corruption and other applicable laws; our ability to hire and retain key personnel and to manage our future growth effectively; our ability to access capital on acceptable terms in a rising interest rate and tighter credit environment; competitive companies and technologies within our industry and our ability to compete; our and our collaborators’, including United Biomedical’s (“UBI”), ability and willingness to obtain, maintain, defend and enforce our intellectual property protection for our proprietary and collaborative product candidates, and the scope of such protection; the performance of third-party suppliers and manufacturers and our ability to find additional suppliers and manufacturers and obtain alternative sources of raw materials; our ability and the potential to successfully manufacture our product candidates for pre-clinical use, for clinical trials and, if approved, on a larger scale for commercial use; the ability and willingness of our third-party collaborators, including UBI, to continue research and development activities relating to our product candidates and our ability to attract additional collaborators with development, regulatory and commercialization expertise; general economic, political, demographic and business conditions in the United States, Taiwan and other jurisdictions where we conduct business or clinical trials; the potential effects of government regulation, including regulatory developments in the United States and other jurisdictions; our ability to obtain additional financing in future offerings or otherwise; the effects of the Russia-Ukraine conflict and the COVID-19 pandemic on business operations and the initiation, development and operation of our clinical trials, including patient enrollment of our clinical trials; and our strategies, prospects, plans, expectations, forecasts or objectives.

These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements and information included in this prospectus supplement, including our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. New risk factors emerge from time to time, and it is not possible to predict all such risk factors,

nor can we assess the impact of all such risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statement. Undue reliance should not be placed on these forward-looking statements. We do not undertake any obligation to make any revisions to these forward-looking statements to reflect events or circumstances after the date on which such statements were made or to reflect the occurrence of unanticipated events, except as required by law.

USE OF PROCEEDS

We may offer and sell our Class A common stock having an aggregate offering price of up to \$100,000,000 from time to time through the sales agent. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We intend to use the net proceeds from this offering, if any, to advance our existing product candidates, invest in our Vaxxine Platform and new product candidates and for general working capital, capital expenditures and other general corporate purposes. We may also use a portion of the net proceeds to in-license or acquire or invest in complementary technologies, products, businesses or assets; however, we have no current plans, commitments or obligations to do so. Our expected use of the net proceeds from this offering represents our current intentions based on our present plans and business condition, which could change as our plans and business conditions evolve. The amounts and timing of our actual use of the net proceeds from this offering will vary depending on numerous factors. As a result, we cannot predict with certainty all of the particular uses for any net proceeds to be received or the amounts that we will actually spend on the uses set forth above. Our board of directors and our management retains broad discretion in the application of the net proceeds from this offering.

Pending the use of the proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation instruments, which may include all or a combination of short-term and long-term interest-bearing instruments, investment-grade securities, and direct or guaranteed obligations of the U.S. government. We cannot predict whether the proceeds invested will yield a favorable return.

DIVIDEND POLICY

We do not anticipate declaring or paying regular cash dividends on our Class A common stock in the near term. Any future declaration and payment of cash dividends or other distributions of capital will be at the discretion of our board of directors and will depend on our financial condition, earnings, cash needs, capital requirements (including requirements of our subsidiaries), contractual, legal, tax and regulatory restrictions, and any other factors that our board of directors deems relevant in making such a determination. Therefore, we cannot assure you that we will pay any cash dividends or other distributions to holders of our Class A common stock, or as to the amount of any such cash dividends or other distributions if and when paid.

DILUTION

If you purchase Class A common stock in this offering, you will experience immediate dilution in an amount equal to the difference between the purchase price per share and our then-net tangible book value per share of common stock.

Net tangible book value per share is determined by dividing our tangible net worth (defined as total assets, less intangible assets, less total liabilities) by the number of shares of common stock outstanding. Our historical net tangible book value as of June 30, 2023 was \$35.0 million, or \$0.28 per share. After giving effect to the assumed sale by us of \$100,000,000 of Class A common stock at an assumed public offering price of \$2.56 per share, which was the last reported sale price of our Class A common stock on Nasdaq on August 4, 2023, and after deducting estimated commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2023, would have been \$130.7 million, or \$0.79 per share, representing an immediate increase in the as adjusted net tangible book value of \$0.51 per share attributable to the purchasers in this offering and immediate dilution of \$1.77 per share to purchasers in this offering.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with Jefferies, under which we may offer and sell our Class A common stock from time to time through Jefferies, acting as agent. Pursuant to this prospectus supplement and the accompanying prospectus, we may offer and sell up to \$100,000,000 of Class A common stock. Sales of Class A common stock, if any, under this prospectus supplement and the accompanying prospectus will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to sell Class A common stock under the sales agreement, we will notify Jefferies of the number of shares of Class A common stock to be sold, the dates on which such sales are anticipated to be made, any limitation on the number of shares of Class A common stock to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Jefferies, unless Jefferies declines to accept the terms of such notice, Jefferies has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Class A common stock up to the amount specified on such terms. The obligations of Jefferies under the sales agreement to sell our Class A common stock are subject to a number of conditions that we must meet.

The settlement of sales of Class A common stock between us and Jefferies is generally anticipated to occur on the second trading day following the date on which the sale was made. Sales of Class A common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Jefferies may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Jefferies a commission of 3.0% of the aggregate gross proceeds we receive from each sale of Class A common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Jefferies for the fees and disbursements of its counsel, payable upon execution of the sales agreement, in an amount not to exceed \$75,000, in addition to certain ongoing disbursements of its legal counsel, unless we and Jefferies otherwise agree. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Jefferies under the terms of the sales agreement, will be approximately \$1.3 million. The remaining proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of Class A common stock in this offering.

Jefferies will provide written confirmation to us before the open on Nasdaq on the day following each day on which shares of Class A common stock are sold under the sales agreement. Each confirmation will include the number of shares of Class A common stock sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

In connection with the sale of Class A common stock on our behalf, Jefferies will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jefferies against certain liabilities, including civil liabilities under the Securities Act. We have also agreed to contribute to payments Jefferies may be required to make in respect of such liabilities.

The offering of Class A common stock pursuant to the sales agreement will terminate upon the earlier of (i) the sale of all Class A common stock subject to the sales agreement and (ii) the termination of the sales agreement as permitted therein.

This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of the sales agreement is filed as an exhibit to the registration statement of which this prospectus supplement forms a part.

Jefferies and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they may in the future receive customary fees. In the course of its business, Jefferies may actively trade our securities for

its own account or for the accounts of customers, and, accordingly, Jefferies may at any time hold long or short positions in such securities.

A prospectus supplement and the accompanying prospectus in electronic format may be made available on a website maintained by Jefferies, and Jefferies may distribute the prospectus supplement and the accompanying prospectus electronically.

VALIDITY OF SECURITIES

The validity of the Class A common stock covered by this prospectus supplement and the accompanying prospectus will be passed on for us by Davis Polk & Wardwell LLP, New York, New York. Jefferies LLC is being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

The consolidated financial statements of Vaxxinity, Inc. as of December 31, 2022 and 2021, and for each of the years in the two-year period ended December 31, 2022, have been incorporated by reference herein in reliance upon the report of Armanino LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information we have filed electronically with the SEC.

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 an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and all documents we file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of the initial filing of the registration statement of which this prospectus supplement and the accompanying prospectus forms a part and the effectiveness of such registration statement and on or after the date of this prospectus supplement and prior to the termination of the offering under this prospectus supplement and the accompanying prospectus (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- (a) our [Annual Report on Form 10-K for the year ended December 31, 2022](#);
- (b) our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2023](#) (solely with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2022);
- (c) our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2023](#) and June 30, 2023;
- (d) our Current Reports on Form 8-K filed with the SEC on [February 3, 2023](#), [June 22, 2023](#) and [July 27, 2023](#); and
- (e) the description of our Class A common stock contained in our [Registration Statement on Form 8-A filed with the SEC on November 10, 2021](#), including any amendments or reports filed for the purposes of updating such description.

Any statement contained in this prospectus supplement or in any document incorporated or deemed to be incorporated by reference into this prospectus supplement will be deemed modified or superseded for the purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or any subsequently filed document which also is, or is deemed to be, incorporated by reference into this prospectus supplement modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

You can obtain any of the filings incorporated by reference in this prospectus supplement through us or from the SEC through the SEC's website at www.sec.gov. Our filings with the SEC, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and exhibits incorporated in and amendments to those reports, are also available free of charge on our website (www.vaxxinity.com) as soon as reasonably practicable after they are filed with, or furnished to, the SEC. Information on, or accessible through, our website is not part of this prospectus supplement, nor is such content incorporated by reference in this prospectus supplement, and should not be relied upon in determining whether to make an investment in our securities. You can obtain any of the documents incorporated by reference into this prospectus supplement from us without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference into those documents. You can obtain documents incorporated by reference into this prospectus supplement by requesting them in writing or by telephone from us at the following address:

Investor Relations
Vaxxinity, Inc.
505 Odyssey Way

Merritt Island, Florida 32953
(254) 244-5739



VAXXINITY, INC.

Up to \$100,000,000

Class A Common Stock

PROSPECTUS

Jefferies

, 2023

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses payable by the Registrant in connection with the sale of the securities being registered hereby.

	Amount to Be Paid
Registration fee	\$ 33,060
FINRA filing fee	45,500
Printing expenses.....	(1)
Legal fees and expenses	(1)
Accounting fees and expenses	(1)
Miscellaneous	(1)
TOTAL	\$ (1)

(1) These fees and expenses depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time and will be reflected in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers

We have entered into indemnification agreements with each of our current directors and executive officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and executive officers.

Section 145 of the Delaware General Corporation Law (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 to the registrant. The DGCL provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. Our Bylaws provide for indemnification by the registrant of its directors, officers and employees 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. Our Charter provides for such limitation of liability.

We maintain standard policies of insurance under which coverage is provided (a) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (b) to us with respect to payments we may make to our officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

Any underwriting agreement that we may enter into may provide for indemnification of our directors and officers by the underwriters against certain liabilities.

Item 16. Exhibits

The following exhibits are filed as part of this Registration Statement:

<u>Exhibit No.</u>	<u>Document</u>
1.1*	Form of Underwriting Agreement
1.2	Open Market Sale AgreementSM, dated as of August 9, 2023, between Vaxxinity, Inc. and Jefferies LLC
4.1	Amended and Restated Certificate of Incorporation of Vaxxinity, Inc. (incorporated by reference to Exhibit 3.1 of our Current Report on Form 8-K (File No. 001-41058) filed on November 17, 2021)
4.2	Amended and Restated Bylaws of Vaxxinity, Inc. (incorporated by reference to Exhibit 3.2 of our Current Report on Form 8-K (File No. 001-41058) filed on November 17, 2021)
4.3	Form of Indenture
4.4*	Form of Note
4.5*	Form of Warrant Agreement
4.6*	Form of Subscription Rights Agreement
4.7*	Form of Unit Agreement
5.1	Opinion of Davis Polk & Wardwell LLP
23.1	Consent of Armanino LLP
23.2	Consent of Davis Polk & Wardwell LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page of the Registration Statement)
25.1**	Statement of Eligibility on Form T-1 of the Trustee for the Indenture
107	Filing fee table

* To be filed, if necessary, as an exhibit to a post-effective amendment to this registration statement or as an exhibit to a Current Report on Form 8-K and incorporated by reference herein.

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

Item 17. Undertakings

The undersigned Registrant hereby undertakes:

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

provided, however, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of

1934 that are incorporated by reference in this 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 of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, 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.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrants pursuant to the foregoing provisions, or otherwise, the registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 registrants will, unless in the opinion of their counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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 Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Merritt Island, Florida, on August 9, 2023.

Vaxxinity, Inc.

By: /s/ Mei Mei Hu
Name: Mei Mei Hu
Title: Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mei Mei Hu, Louis Reese, René Paula Molina and Jason Pesile and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and any and all additional registration statements pursuant to Rule 462(b) of the Securities Act of 1933, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or his or her or their 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 on August 9, 2023.

<u>Signature</u>	<u>Title</u>
<u>/s/ Mei Mei Hu</u> Mei Mei Hu	Chief Executive Officer and Director (principal executive officer)
<u>/s/ Jason Pesile</u> Jason Pesile	Senior Vice President, Finance and Accounting (principal financial officer and principal accounting officer)
<u>/s/ Louis Reese</u> Louis Reese	Executive Chairman
<u>/s/ Peter Diamandis</u> Peter Diamandis	Director
<u>/s/ Katherine Eade</u> Katherine Eade	Director
<u>/s/ George Hornig</u> George Hornig	Director
<u>/s/ Landon Ogilvie</u> Landon Ogilvie	Director
<u>/s/ Peter Powchik</u> Peter Powchik	Director
<u>/s/ James Smith</u> James Smith	Director
<u>/s/ Gabrielle Toledano</u> Gabrielle Toledano	Director

OPEN MARKET SALE AGREEMENTSM

August 9, 2023

JEFFERIES LLC
520 Madison Avenue
New York, New York 10022

Ladies and Gentlemen:

Vaxxinity, Inc., a Delaware corporation (the “**Company**”), proposes, subject to the terms and conditions stated herein, to issue and sell from time to time through Jefferies LLC, as sales agent and/or principal (the “**Agent**”), shares of the Company’s Class A common stock, par value \$0.0001 per share (the “**Common Shares**”), on the terms set forth in this agreement (this “**Agreement**”).

Section 1. DEFINITIONS

(a) Certain Definitions. For purposes of this Agreement, capitalized terms used herein and not otherwise defined shall have the following respective meanings:

“**Affiliate**” of a Person means another Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such first-mentioned Person. The term “control” (including the terms “controlling,” “controlled by” and “under common control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

“**Agency Period**” means the period commencing on the date of this Agreement and expiring on the earliest to occur of (x) the date on which the Agent shall have placed the Maximum Program Amount pursuant to this Agreement and (y) the date this Agreement is terminated pursuant to Section 7.

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

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder.

“**Floor Price**” means the minimum price set by the Company in the Issuance Notice below which the Agent shall not sell Shares during the applicable period set forth in the Issuance Notice, which may be adjusted by the Company at any time during the period set forth in the Issuance Notice by delivering written notice of such change to the Agent and which in no event shall be less than \$1.00 without the prior written consent of the Agent, which may be withheld in the Agent’s sole discretion.

SM “Open Market Sale Agreement” is a service mark of Jefferies LLC

“Issuance Amount” means the aggregate Sales Price of the Shares to be sold by the Agent pursuant to any Issuance Notice.

“Issuance Notice” means a written notice delivered to the Agent by the Company in accordance with this Agreement in the form attached hereto as Exhibit A that is executed by its principal executive officer or principal financial officer.

“Issuance Notice Date” means any Trading Day during the Agency Period that an Issuance Notice is delivered pursuant to Section 3(b)(i).

“Issuance Price” means the Sales Price less the Selling Commission.

“Maximum Program Amount” means Common Shares with an aggregate Sales Price of the lesser of (a) the number or dollar amount of Common Shares registered under the effective Registration Statement (defined below) pursuant to which the offering is being made, (b) the number of authorized but unissued Common Shares (less Common Shares issuable upon exercise, conversion or exchange of any outstanding securities of the Company or otherwise reserved from the Company’s authorized capital stock), (c) the number or dollar amount of Common Shares permitted to be sold under Form S-3 (including General Instruction I.B.6 thereof, if applicable), or (d) the number or dollar amount of Common Shares for which the Company has filed a Prospectus (defined below).

“Person” means an individual or a corporation, partnership, limited liability company, trust, incorporated or unincorporated association, joint venture, joint stock company, governmental authority or other entity of any kind.

“Principal Market” means The Nasdaq Stock Market LLC or such other national securities exchange on which the Common Shares, including any Shares, are then listed.

“Sales Price” means the actual sale execution price of each Share placed by the Agent pursuant to this Agreement.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations of the Commission thereunder.

“Selling Commission” means three percent (3.0%) of the gross proceeds of Shares sold pursuant to this Agreement, or as otherwise agreed between the Company and the Agent with respect to any Shares sold pursuant to this Agreement.

“Settlement Date” means the second business day following each Trading Day during the period set forth in the Issuance Notice on which Shares are sold pursuant to this Agreement, when the Company shall deliver to the Agent the amount of Shares sold on such Trading Day and the Agent shall deliver to the Company the Issuance Price received on such sales.

“Shares” shall mean the Company’s Common Shares issued or issuable pursuant to this Agreement.

“Trading Day” means any day on which the Principal Market is open for trading.

Section 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to, and agrees with, the Agent that as of (1) the date of this Agreement, (2) each Issuance Notice Date, (3) each Settlement Date, (4) each Triggering Event Date (as defined below) with respect to which the Company is required to deliver a certificate pursuant to Section 4(o), and (5) as of each Time of Sale (each of the times referenced above is referred to herein as a “**Representation Date**”), except as may be disclosed in the Prospectus (including any documents incorporated by reference therein and any supplements thereto) on or before a Representation Date:

(a) Registration Statement. The Company has prepared and filed, or will file, with the Commission a shelf registration statement on Form S-3 that contains a base prospectus (the “**Base Prospectus**”). Such registration statement registers the offering and sale by the Company of the Shares under the Securities Act. The Company may file one or more additional registration statements from time to time that will contain a base prospectus and related prospectus or prospectus supplement, if applicable, with respect to the Shares. Except where the context otherwise requires, such registration statement(s), including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, including all financial statements, exhibits and schedules thereto and all documents incorporated or deemed to be incorporated therein by reference pursuant to Item 12 of Form S-3 under the Securities Act as from time to time amended or supplemented, is herein referred to as the “**Registration Statement**,” and the prospectus supplement relating to the sale of the Shares and constituting a part of such registration statement(s), together with the Base Prospectus and any prospectus supplement filed with the Commission pursuant to Rule 424(b) under the Securities Act relating to a particular offering of the Shares, including all documents incorporated or deemed to be incorporated therein by reference pursuant to Item 12 of Form S-3 under the Securities Act, in each case, as from time to time amended or supplemented, is referred to herein as the “**Prospectus**,” except that if any revised prospectus is provided to the Agent by the Company for use in connection with the offering of the Shares that is not required to be filed by the Company pursuant to Rule 424(b) under the Securities Act, the term “**Prospectus**” shall refer to such revised prospectus from and after the time it is first provided to the Agent for such use. As used in this Agreement, the terms “amendment” or “supplement” when applied to the Registration Statement or the Prospectus shall be deemed to include the filing by the Company with the Commission of any document under the Exchange Act after the date hereof that is or is deemed to be incorporated therein by reference.

All references in this Agreement to financial statements and schedules and other information which is “contained,” “included” or “stated” in the Registration Statement or the Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in or otherwise deemed under the Securities Act to be a part of or included in the Registration Statement or the Prospectus, as the case may be, as of any specified date; and all references in this Agreement to amendments or supplements to the Registration Statement or the Prospectus shall be deemed to mean and include, without limitation, the filing of any document under the Exchange Act which is or is deemed to be incorporated by reference in or otherwise deemed under the Securities Act to be a part of or included in the Registration Statement or the Prospectus, as the case may be, as of any specified date.

At the time the Registration Statement was or will be declared effective and at the time the Company's most recent annual report on Form 10-K was filed with the Commission, if later, the Company met the then-applicable requirements for use of Form S-3 under the Securities Act. During the Agency Period, each time the Company files an annual report on Form 10-K the Company will meet the then-applicable requirements for use of Form S-3 under the Securities Act.

(b) Compliance with Registration Requirements. The Registration Statement and any registration statement filed pursuant to Rule 462(b) under the Securities Act ("**Rule 462(b) Registration Statement**") have been declared effective by the Commission under the Securities Act. The Company has complied to the Commission's satisfaction with all requests of the Commission for additional or supplemental information in connection therewith, if any. No stop order suspending the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the best knowledge of the Company, are contemplated or threatened by the Commission.

The Prospectus, when filed, complied or will comply in all material respects with the Securities Act and, if filed with the Commission through its Electronic Data Gathering, Analysis and Retrieval system ("**EDGAR**") (except as may be permitted by Regulation S-T under the Securities Act), was identical to the copy thereof delivered to the Agent for use in connection with the offering and sale of the Shares. Each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective and at each Representation Date, complied and will comply in all material respects with the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the date of this Agreement, the Prospectus and any Free Writing Prospectus (as defined below) considered together (collectively, the "**Time of Sale Information**") did not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Prospectus, as amended or supplemented, as of its date and at each Representation Date, did not and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information relating to the Agent furnished to the Company in writing by the Agent expressly for use therein, it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information described in Section 6 below. There are no contracts or other documents required to be described in the Prospectus or to be filed as exhibits to the Registration Statement which have not been described or filed as required. The Registration Statement and the offer and sale of the Shares as contemplated hereby meet the requirements of Rule 415 under the Securities Act and comply in all material respects with said rule.

(c) Ineligible Issuer Status. The Company is not an "ineligible issuer" in connection with the offering of the Shares pursuant to Rules 164, 405 and 433 under the Securities Act. Any Free Writing Prospectus that the Company is required to file pursuant to Rule 433(d) under the

Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each Free Writing Prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of Rule 433 under the Securities Act including timely filing with the Commission or retention where required and legending, and each such Free Writing Prospectus, as of its issue date and at each Representation Date did not, does not and will not include any information that conflicted, conflicts with or will conflict with the information contained in the Registration Statement or the Prospectus, including any document incorporated by reference therein. Except for the Free Writing Prospectuses, if any, furnished to the Agent before first use, the Company has not prepared, used or referred to, and will not, without the Agent's prior consent, prepare, use or refer to, any Free Writing Prospectus.

(d) Incorporated Documents. The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus, at the time they were filed with the Commission, complied in all material respects with the requirements of the Exchange Act, as applicable, and, when read together with the other information in the Prospectus, do not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(e) Exchange Act Compliance. The documents incorporated or deemed to be incorporated by reference in the Prospectus, at the time they were or hereafter are filed with the Commission complied and will comply in all material respects with the requirements of the Exchange Act, and, when read together with the other information in the Prospectus, at the time the Registration Statement and any amendments thereto become effective and at each Time of Sale (as defined below), as the case may be, will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) Emerging Growth Company Status. From the time of filing of the Registration Statement through the date hereof, the Company has been and is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "**Emerging Growth Company**").

(g) Independent Accountants. Armanino LLP, or such other accountants (the "**Accountants**"), who certified or reviewed the financial statements and supporting schedules included or incorporated by reference in the Registration Statement and the Prospectus are independent public accountants as required by the Securities Act and the Public Company Accounting Oversight Board.

(h) Financial Statements; Non-GAAP Financial Measures. The financial statements included or incorporated by reference in the Registration Statement and the Prospectus, together with the related schedules and notes thereto, present fairly in all material respects the financial position of the Company and its combined consolidated subsidiaries at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its combined consolidated subsidiaries for the periods specified; said financial statements have been prepared

in conformity with U.S. generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods involved. The supporting schedules, if any, present fairly in all material respects in accordance with GAAP the information required to be stated therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement or the Prospectus under the Securities Act. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission’s rules and guidelines applicable thereto.

(i) No Material Adverse Effect on Business. Except as otherwise stated therein, since the respective dates as of which information is given in the Registration Statement or the Prospectus, (A) there has been no material adverse change in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business (a “**Material Adverse Effect**”), (B) there have been no transactions entered into by the Company or any of its subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its subsidiaries considered as one enterprise, and (C) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(j) Good Standing of the Company. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement and the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not reasonably be expected to result in a Material Adverse Effect.

(k) Good Standing of Subsidiaries. Each “significant subsidiary” of the Company (as such term is defined in Rule 1-02 of Regulation S-X) (each, a “**subsidiary**” and, collectively, the “**subsidiaries**”) has been duly organized and is validly existing in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or similar power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, in each case except as would not reasonably be expected to result in a Material Adverse Effect. Except as otherwise disclosed in the Registration Statement and the Prospectus, all of the issued and outstanding capital stock of each subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and is owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity. None of the outstanding shares of capital stock of any subsidiary were issued in violation of the preemptive or similar rights of any securityholder of such subsidiary. The only subsidiaries of the Company are the subsidiaries listed on Exhibit 21 to the Company’s most recent annual report on Form 10-K.

(l) Capitalization. The authorized, issued and outstanding shares of capital stock of the Company are as set forth in the Registration Statement and the Prospectus (except for subsequent issuances, if any, pursuant to this Agreement, pursuant to reservations, agreements or employee benefit plans referred to in the Registration Statement and the Prospectus or pursuant to the exercise of convertible securities or options or warrants referred to in the Registration Statement and the Prospectus) and there are no outstanding warrants, options, other convertible securities or other rights to acquire shares of Common Shares that have not been disclosed in the Registration Statement and the Prospectus. The outstanding shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable. None of the outstanding shares of capital stock of the Company were issued in violation of the preemptive or other similar rights of any securityholder of the Company.

(m) Authorization of Agreement. This Agreement has been duly authorized, executed and delivered by the Company.

(n) Authorization and Description of Shares. The Shares subject to any Issuance Notice have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement against payment therefor, will be validly issued and fully paid and non-assessable; and the issuance and sale of the Shares is not subject to the preemptive or other similar rights to subscribe for or purchase the Shares. The Common Shares conform in all material respects to all statements relating thereto contained in the Registration Statement and the Prospectus and such description conforms in all material respects to the rights set forth in the instrument defining the same.

(o) Registration Rights. There are no persons with registration rights or other similar rights to have any securities registered for sale pursuant to the Registration Statement, other than those rights that have been disclosed in the Registration Statement and the Prospectus and have been waived.

(p) Absence of Violations, Defaults and Conflicts. Neither the Company nor any of its subsidiaries is (A) in violation of its charter, by-laws or similar organizational document, (B) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound or to which any of the properties or assets of the Company or any subsidiary is subject (collectively, “**Agreements and Instruments**”), except for such defaults that would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect, or (C) in violation of any law, statute, rule, regulation, judgment, order, writ or decree of any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations (each, a “**Governmental Entity**”), except for such violations that would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect. The execution, delivery and performance of this Agreement and the issuance and sale of the Shares subject to any Issuance Notice and the use of the proceeds from the sale of such Shares as described therein under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage

of time or both, conflict with or constitute a breach of, or default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or any subsidiary pursuant to, the Agreements and Instruments (except for such conflicts, breaches, defaults or Repayment Events or liens, charges or encumbrances that would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect), nor will such action result in any violation of (i) the provisions of the charter, by-laws or similar organizational document of the Company or any of its subsidiaries or (ii) any law, statute, rule, regulation, judgment, order, writ or decree of any Governmental Entity, except, in the case of clause (ii) above, for such violations that would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect. As used herein, a “**Repayment Event**” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(q) Absence of Labor Dispute. Except as disclosed in the Registration Statement and the Prospectus, (A) no labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is imminent, and (B) the Company is not aware of any existing or imminent labor disturbance by the employees of any of the Company’s or any subsidiary’s principal suppliers, manufacturers, customers or contractors, which, in the case of either clause (A) or (B), would, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(r) Absence of Proceedings. Except as disclosed in the Registration Statement and the Prospectus, there is no action, suit, proceeding, inquiry or investigation before or brought by any Governmental Entity now pending or, to the knowledge of the Company, threatened, against the Company or any of its subsidiaries, that, singly or in the aggregate, if determined adversely to the Company or any of its subsidiaries, would reasonably be expected to result in a Material Adverse Effect, or which would reasonably be expected to materially and adversely affect their respective properties or assets or the consummation of the transactions contemplated in this Agreement or the performance by the Company of its obligations hereunder; and the aggregate of all pending legal or governmental proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject which are not described in the Registration Statement and the Prospectus, including ordinary routine litigation incidental to the business, would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(s) Accuracy of Exhibits. There are no contracts or documents which are required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement which have not been so described and filed as required.

(t) Absence of Further Requirements. No filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any Governmental Entity is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Shares hereunder or the consummation of the transactions contemplated by this Agreement, except (A) such as have been already obtained or as

may be required under the Securities Act, the rules of the Principal Market, state securities laws or the rules of the Financial Industry Regulatory Authority (“**FINRA**”).

(u) Possession of Licenses and Permits. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries possess such permits, licenses, approvals, consents and other authorizations (collectively, “**Governmental Licenses**”) issued by the appropriate Governmental Entities necessary to conduct the business now operated by them, except where the failure so to possess would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries are in compliance with the terms and conditions of all Governmental Licenses, except where the failure so to comply would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, all of the Governmental Licenses are valid and in full force and effect, except when the invalidity of such Governmental Licenses or the failure of such Governmental Licenses to be in full force and effect would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries has received any written notice of proceedings relating to the revocation or modification of any Governmental Licenses which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to result in a Material Adverse Effect.

(v) Title to Property. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries do not own any real property and have good title to all other properties (other than Intellectual Property (as defined below), which is addressed in Section 1(r) below) owned by them that are material to the business of the Company and its subsidiaries, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as do not, singly or in the aggregate, materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries; and except as disclosed in the Registration Statement and the Prospectus, all of the leases and subleases material to the business of the Company and its subsidiaries, considered as one enterprise, and under which the Company or any of its subsidiaries holds properties described in the Registration Statement or the Prospectus, are in full force and effect, and neither the Company nor any such subsidiary has received any written notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(w) Possession of Intellectual Property. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries own or have a valid license to, or can acquire on reasonable terms, adequate rights to all patents, patent rights, licenses, inventions, copyrights, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property (collectively, “**Intellectual Property**”) used in or necessary to carry on the business now operated by them. Except as disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries has received any written notice or is otherwise aware of any infringement of or conflict with asserted rights of others with respect

to any Intellectual Property or of any facts or circumstances which would render any of their Intellectual Property invalid or inadequate to protect the interest of the Company or any of its subsidiaries therein, nor does the operation of the Company's or its subsidiaries' business as now operated by them infringe or conflict with the Intellectual Property of others, in each case which infringement or conflict (if the subject of any unfavorable decision, ruling or finding) or invalidity or inadequacy, singly or in the aggregate, would reasonably be expected to result in a Material Adverse Effect.

(x) Environmental Laws. Except as described in the Registration Statement and the Prospectus or would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect, (A) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, "**Hazardous Materials**") or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, "**Environmental Laws**"), (B) the Company and its subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the knowledge of the Company, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigations or proceedings relating to any Environmental Law or Hazardous Materials against the Company or any of its subsidiaries and (D) to the knowledge of the Company, there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or Governmental Entity, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(y) Accounting Controls. The Company maintains a system of internal control over financial reporting (as defined under Rule 13-a15 and 15d-15 under the Exchange Act) and a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (E) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as described in the Registration Statement and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (1) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (2) no change in the Company's internal control over financial

reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(z) Compliance with the Sarbanes-Oxley Act. The Company has taken all necessary actions to ensure that it is in compliance in all material respects with the Sarbanes-Oxley Act that are in effect, and only to the extent that such provisions are applicable to the Company as of such time.

(aa) Payment of Taxes. Except as disclosed in the Registration Statement and the Prospectus, all income tax returns of the Company and its subsidiaries required by law to be filed by the Company and its subsidiaries have been filed and are true, correct and complete in all material respects and all taxes, interest, penalties or additional amounts shown by such returns or otherwise assessed (whether imposed directly or through withholding), which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken, are being contested in good faith and as to which adequate reserves have been provided. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable tax law, and all such tax returns are true, correct and complete in all material respects, except insofar as the failure to file such returns would not reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries have paid all taxes shown as due pursuant to such returns or pursuant to any assessment received by the Company and its subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been established by the Company, or except insofar as the failure to pay such taxes would not reasonably be expected to result in a Material Adverse Effect. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional tax for any years not finally determined, except to the extent of any inadequacy that would not reasonably be expected to result in a Material Adverse Effect.

(bb) Insurance. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as the Company reasonably believes is adequate to conduct its business and the business of its subsidiaries as described in the Registration Statement and the Prospectus, and all such insurance is in full force and effect except where the failure to carry such insurance or have such insurance be in full effect would not reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, the Company has no reason to believe that it or any of its subsidiaries will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as presently conducted and at a cost that would not reasonably be expected to result in a Material Adverse Effect.

(cc) Investment Company Act. The Company is not required, and upon the issuance and sale of the Shares as herein contemplated and the application of the net proceeds therefrom as described in the Prospectus will not be required, to register as an "investment company" under the Investment Company Act of 1940, as amended (the "**Investment Company Act**").

(dd) Absence of Manipulation. Neither the Company nor any controlled Affiliate of the Company has taken, nor will the Company or any controlled Affiliate take, directly or indirectly, any action which is designed, or would reasonably be expected, to cause or result in, or which constitutes, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares or result in a violation of Regulation M under the Exchange Act.

(ee) Anti-Corruption and Anti-Bribery Laws. None of the Company, any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, controlled Affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, the UK Bribery Act 2010, and similar laws of other jurisdictions where the Company conducts business (collectively, “**Anti-Corruption Laws**”), including, without limitation, making an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any government official or any political party or official thereof or any candidate for political office, in contravention of Anti-Corruption Laws and the Company and, to the knowledge of the Company, its controlled Affiliates have conducted their businesses in compliance with Anti-Corruption Laws and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith. Except as otherwise disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries nor, to the best of the Company’s knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any law or of the character required to be disclosed in the Registration Statement and the Prospectus.

(ff) Money Laundering Laws. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the “**Money Laundering Laws**”); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(gg) OFAC. None of the Company, any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, controlled Affiliate or representative of the Company or any of its subsidiaries is an individual or entity (“**Person**”) currently the subject or target of any sanctions administered or enforced by the United States Government, including, without limitation, the U.S. Department of the Treasury’s Office of Foreign Assets Control (“**OFAC**”), the United Nations Security Council (“**UNSC**”), the European Union, His Majesty’s Treasury (“**HMT**”), or other relevant sanctions authority (collectively, “**Sanctions**”), nor is the Company located, organized or resident in a country or territory that is the subject of Sanctions; and the Company will not directly or indirectly use the proceeds of the sale of the Shares, or lend, contribute or otherwise make available such proceeds to any subsidiaries, joint venture partners or

other Person, to fund any activities of or business with any Person, or in any country or territory, that, at the time of such funding, is the subject of Sanctions or in any other manner that will result in a violation by any Person (including any Person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions.

(hh) Lending Relationship. Except as disclosed in the Registration Statement and the Prospectus, the Company (i) does not have any material lending or other relationship with any bank or lending Affiliate of the Agent and (ii) does not intend to use any of the proceeds from the sale of the Shares to repay any outstanding debt owed to any Affiliate of the Agent.

(ii) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement or the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(jj) Cybersecurity. Except as disclosed in the Registration Statement and the Prospectus, there has been no security breach or incident, unauthorized access or disclosure, or other compromise of or relating to the Company's or its subsidiaries' information technology and computer systems, networks, hardware, software, data and databases (including the data and information of their respective customers, employees, suppliers, vendors and any third party data maintained, processed or stored by the Company and its subsidiaries, and any such data processed or stored by third parties on behalf of the Company and its subsidiaries), equipment or technology (collectively, "**IT Systems and Data**"), except as has not resulted in material liability to the Company. Except as disclosed in the Registration Statement and the Prospectus, neither the Company nor its subsidiaries have been notified in writing of, and each of them have no knowledge of any event or condition that would reasonably be expected to result in, any material security breach or incident, unauthorized access or disclosure or other compromise to their IT Systems and Data. Except as disclosed in the Registration Statement and the Prospectus, the Company and its subsidiaries have implemented appropriate controls, policies, procedures and technological safeguards intended to maintain and protect the integrity, continuous operation, redundancy and security of their IT Systems and Data reasonably consistent with industry standards and practices, or as required by applicable regulatory standards. Except as disclosed in the Registration Statement and the Prospectus, and except as would not, singly or in the aggregate, reasonably be expected to result in a Material Adverse Effect, the Company and its subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification.

(kk) Stock Exchange Listing. The Common Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act and are listed on the Principal Market, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares under the Exchange Act or delisting the Common Shares from the Principal Market, nor has the Company received any notification that the Commission or the Principal Market is contemplating terminating such registration or listing. To the Company's knowledge, it is in material compliance with all applicable listing requirements of the Principal Market.

(ll) FINRA Matters. All of the information provided to the Agent or to counsel for the Agent by the Company in connection with the offering of the Shares is true, complete, correct and compliant with FINRA rules and any letters, filings or other supplemental information provided to FINRA pursuant to FINRA Rules or NASD Conduct Rules is true, complete and correct.

(mm) ERISA Compliance. Except as otherwise disclosed in the Prospectus, the Company and its subsidiaries and any “employee benefit plan” (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “ERISA”)) established or maintained by the Company, its subsidiaries or their “ERISA Affiliates” (as defined below) are in compliance in all material respects with ERISA. “ERISA Affiliate” means, with respect to the Company or any of its subsidiaries, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the “Code”) of which the Company or such subsidiary is a member. No “reportable event” (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates. Except as otherwise disclosed in the Registration Statement and the Prospectus, no “employee benefit plan” established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined under ERISA). Except as otherwise disclosed in the Registration Statement and the Prospectus and except as would not have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, neither the Company, its subsidiaries nor any of their ERISA Affiliates has incurred or reasonably expects to incur any liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Except as otherwise disclosed in the Registration Statement and the Prospectus and except as would not have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, each “employee benefit plan” established or maintained by the Company, its subsidiaries or any of their ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

(nn) Brokers. Except as otherwise disclosed in the Prospectus, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder’s fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(oo) Dividend Restrictions. Except as disclosed in the Prospectus, no subsidiary of the Company is prohibited or restricted, directly or indirectly, from paying dividends to the Company, or from making any other distribution with respect to such subsidiary’s equity securities or from repaying to the Company or any other subsidiary of the Company any amounts that may from time to time become due under any loans or advances to such subsidiary from the Company or from transferring any property or assets to the Company or to any other subsidiary.

(pp) Clinical Data and Regulatory Compliance. Except as otherwise disclosed in the Registration Statement and the Prospectus, and except as would not have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, (i) the pre-clinical studies and clinical trials conducted by or, to the knowledge of the Company, on behalf of or sponsored by the Company or its subsidiaries or in which the Company or its subsidiaries have participated, that are described in

the Registration Statement and the Prospectus, or the results of which are referred to in the Registration Statement and the Prospectus, as applicable, were, and if still pending are, being conducted in all material respects in accordance with the protocols submitted to the U.S. Food and Drug Administration (the “**FDA**”) and other applicable regulatory authorities (including, without limitation, any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) (collectively, the “**Regulatory Authorities**”), the applicable rules and regulations of the Regulatory Authorities, and current Good Clinical Practices and Good Laboratory Practices; (ii) the descriptions in the Registration Statement and the Prospectus of the results of such studies and trials are accurate in all material respects and fairly present in all material respects the data derived therefrom; (iii) the Company has no knowledge of any other studies or trials not described in the Registration Statement and the Prospectus, the results of which call into question the results described or referred to in the Registration Statement and the Prospectus; (iv) the Company and its subsidiaries have operated at all times and are currently in material compliance with all applicable statutes, rules and regulations of the Regulatory Authorities; and (v) neither the Company nor any of its subsidiaries have received any written notices, correspondence or other communications from the Regulatory Authorities or any other governmental agency requiring the termination, modification or suspension of any pre-clinical studies or clinical trials that are described in the Registration Statement and the Prospectus or the results of which are referred to in the Registration Statement and the Prospectus, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or trials, and, to the Company’s best knowledge, there are no reasonable grounds for the same.

(qq) Duties, Transfer Taxes, Etc. No stamp or other issuance or transfer taxes or duties and no capital gains, income, withholding or other taxes are payable by the Agent in the United States or any political subdivision or taxing authority thereof or therein in connection with the execution, delivery or performance of this Agreement by the Company or the sale and delivery by the Company of the Shares.

(rr) Compliance with Health Care Laws. Except as otherwise disclosed in the Registration Statement or the Prospectus and except as would be reasonably expected to have a Material Adverse Effect on the Company and its subsidiaries, taken as a whole, the Company and its subsidiaries are, and at all times have been, in compliance with all applicable Health Care Laws. For purposes of this Agreement, “**Health Care Laws**” means: (i) the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.), the Public Health Service Act (42 U.S.C. §§ 201 et seq.); (ii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. § 1320a-7b(b)), the U.S. False Statements Law (42 U.S.C. § 1320a-7b(a)), the Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), the U.S. Civil False Claims Act (31 U.S.C. § 3729 et seq.), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. §§ 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) (42 U.S.C. §§ 1320d et seq.), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the exclusion law (42 U.S.C. § 1320a-7); (iii) HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.); (iv) regulations promulgated pursuant to such statutes; and (v) any and all other applicable federal, state, or foreign health care laws and regulation applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing,

advertising, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company. Neither the Company nor its subsidiaries has received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental or regulatory authority or third party alleging that it is in violation of any Health Care Laws, and, to the Company's knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened. Neither the Company nor its subsidiaries, nor their respective officers, directors, employees, contractors or agents, is a party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any governmental or regulatory authority. Additionally, neither the Company nor any of its employees, officers, directors, contractors or agents, nor its subsidiaries or any of the subsidiary's employees, officers, directors, contractors or agents, has been excluded, suspended or debarred from participation in any U.S. federal health care program (as defined in 42 U.S.C. § 1320a-7b(f)) or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in such debarment, suspension, or exclusion. The Company and its subsidiaries have filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by the Health Care Laws, and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were timely, complete, accurate and not misleading on the date filed in all material respects (or were corrected or supplemented by a subsequent submission).

(ss) Forward-Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) (a "**Forward-Looking Statement**") contained in the Registration Statement and the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(tt) Other Agreements. The Company is not a party to any agreement with an agent or underwriter for any other "at the market" or continuous equity transaction.

Any certificate signed by any officer or representative of the Company or any of its subsidiaries and delivered to the Agent or counsel for the Agent in connection with an offering or sale of Shares shall be deemed a representation and warranty by the Company to the Agent as to the matters covered thereby on the date of such certificate.

The Company acknowledges that the Agent and, for purposes of the opinions to be delivered pursuant to Section 4(p) hereof, counsel to the Company and counsel to the Agent, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

Section 3. OFFER AND SALE OF COMMON SHARES

(a) Sale of Securities. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company and the Agent agree that the Company may from time to time seek to sell Shares through the Agent, acting as sales agent, or directly to the Agent, acting as principal, as follows, with an aggregate Sales

Price of up to the Maximum Program Amount, based on and in accordance with Issuance Notices as the Company may deliver, during the Agency Period.

(b) Mechanics of Issuances.

(i) Issuance Notice. Upon the terms and subject to the conditions set forth herein, on any Trading Day during the Agency Period on which the conditions set forth in Section 5(a) and Section 5(b) shall have been satisfied, the Company may exercise its right to request a sale of Shares by delivering to the Agent an Issuance Notice; provided, however, that (A) in no event may the Company deliver an Issuance Notice to the extent that the sum of (x) the aggregate Sales Price of the requested Issuance Amount, plus (y) the aggregate Sales Price of all Shares sold under all previous Issuance Notices effected pursuant to this Agreement, would exceed the Maximum Program Amount; and (B) prior to delivery of any Issuance Notice, the period set forth for any previous Issuance Notice shall have expired or been terminated. An Issuance Notice shall be considered delivered on the Trading Day that it is received by e-mail to the persons set forth in Schedule A hereto and confirmed by the Company by telephone (including a voicemail message to the persons so identified), with the understanding that, with adequate prior written notice, the Agent may modify the list of such persons from time to time.

(ii) Agent Efforts. Upon the terms and subject to the conditions set forth in this Agreement, upon the receipt of an Issuance Notice, the Agent will use its commercially reasonable efforts consistent with its normal sales and trading practices to place the Shares with respect to which the Agent has agreed to act as sales agent, subject to, and in accordance with the information specified in, the Issuance Notice, unless the sale of the Shares described therein has been suspended, cancelled or otherwise terminated in accordance with the terms of this Agreement. For the avoidance of doubt, the parties to this Agreement may modify an Issuance Notice at any time provided they both agree in writing to any such modification.

(iii) Method of Offer and Sale. The Shares may be offered and sold (A) in negotiated transactions with the consent of the Company or (B) by any other method permitted by law deemed to be an “**at the market offering**” as defined in Rule 415(a)(4) under the Securities Act, including block transactions, sales made directly on the Principal Market or sales made into any other existing trading market of the Common Shares. Nothing in this Agreement shall be deemed to require either party to agree to the method of offer and sale specified in the preceding sentence, and (except as specified in clause (A) above) the method of placement of any Shares by the Agent shall be at the Agent’s discretion.

(iv) Confirmation to the Company. If acting as sales agent hereunder, the Agent will provide written confirmation to the Company no later than the opening of the Trading Day next following the Trading Day on which it has placed Shares hereunder setting forth the number of shares sold on such Trading Day, the corresponding Sales Price and the Issuance Price payable to the Company in respect thereof.

(v) Settlement. Each sale of Shares will be settled on the applicable Settlement Date for such sale of Shares and, subject to the provisions of Section 5, on or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Shares being sold by crediting the Agent or its designee’s account at The Depository Trust

Company through its Deposit/Withdrawal At Custodian (DWAC) System, or by such other means of delivery as may be mutually agreed upon by the parties hereto and, upon receipt of such Shares, which in all cases shall be freely tradable, transferable, registered shares in good deliverable form, the Agent will deliver, by wire transfer of immediately available funds, the related Issuance Price in same day funds delivered to an account designated by the Company prior to the Settlement Date. The Company may sell Shares to the Agent as principal at a price agreed upon at each relevant time Shares are sold pursuant to this Agreement (each, a “**Time of Sale**”).

(vi) Suspension or Termination of Sales. Consistent with standard market settlement practices, the Company or the Agent may, upon notice to the other party hereto in writing or by telephone (confirmed immediately by verifiable e-mail), suspend any sale of Shares, and the period set forth in an Issuance Notice shall immediately terminate; provided, however, that (A) such suspension and termination shall not affect or impair either party’s obligations with respect to any Shares placed or sold hereunder prior to the receipt of such notice; (B) if the Company suspends or terminates any sale of Shares after the Agent confirms such sale to the Company, the Company shall still be obligated to comply with Section 3(b)(v) with respect to such Shares; and (C) if the Company defaults in its obligation to deliver Shares on a Settlement Date (other than as a result of the failure by the Agent to perform its obligations under this Agreement), the Company agrees that it will hold the Agent harmless against any loss, claim, damage or expense (including, without limitation, penalties, interest and reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company. The parties hereto acknowledge and agree that, in performing its obligations under this Agreement, the Agent may borrow Common Shares from stock lenders in the event that the Company has not delivered Shares to settle sales as required by subsection (v) above, and may use the Shares to settle or close out such borrowings. The Company agrees that no such notice shall be effective against the Agent unless it is made to the persons identified in writing by the Agent pursuant to Section 3(b)(i).

(vii) No Guarantee of Placement, Etc. The Company acknowledges and agrees that (A) there can be no assurance that the Agent will be successful in placing Shares; (B) the Agent will incur no liability or obligation to the Company or any other Person if it does not sell Shares; and (C) the Agent shall be under no obligation to purchase Shares on a principal basis pursuant to this Agreement, except as otherwise specifically agreed by the Agent and the Company.

(viii) Material Non-Public Information. Notwithstanding any other provision of this Agreement, the Company and the Agent agree that the Company shall not deliver any Issuance Notice to the Agent, and the Agent shall not be obligated to place any Shares, during any period in which the Company is in possession of material non-public information.

(c) Fees. As compensation for services rendered, the Company shall pay to the Agent, on the applicable Settlement Date, the Selling Commission for the applicable Issuance Amount (including with respect to any suspended or terminated sale pursuant to Section 3(b)(vi)) by the Agent deducting the Selling Commission from the applicable Issuance Amount.

(d) Expenses. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the

transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Shares (including all printing and engraving costs); (ii) all fees and expenses of the registrar and transfer agent of the Shares; (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Shares; (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors; (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Prospectus, any Free Writing Prospectus (as defined below) prepared by or on behalf of, used by, or referred to by the Company, and all amendments and supplements thereto, and this Agreement; (vi) all filing fees, attorneys' fees and expenses incurred by the Company or the Agent in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada, and, if requested by the Agent, preparing and printing a "**Blue Sky Survey**" or memorandum and a "Canadian wrapper", and any supplements thereto, advising the Agent of such qualifications, registrations, determinations and exemptions; (vii) the reasonable fees and disbursements of the Agent's counsel, including the reasonable fees and expenses of counsel for the Agent in connection with, FINRA review, if any, and approval of the Agent's participation in the offering and distribution of the Shares; (viii) the filing fees incident to FINRA review, if any; and (ix) the fees and expenses associated with listing the Shares on the Principal Market. The fees and disbursements of Agent's counsel pursuant to subsections (vi) and (vii) above shall not exceed (A) \$75,000 in connection with the execution of this Agreement and (B) \$25,000 in connection with each Triggering Event Date (as defined below) involving the filing of a Form 10-K on which the Company is required to provide a certificate pursuant to Section 4(o) and (C) \$15,000 in connection with each other Triggering Event Date (as defined below) on which the Company is required to provide a certificate pursuant to Section 4(o).

Section 4. ADDITIONAL COVENANTS

The Company covenants and agrees with the Agent as follows, in addition to any other covenants and agreements made elsewhere in this Agreement:

(a) Exchange Act Compliance. During the Agency Period, the Company shall (i) file, on a timely basis, with the Commission all reports and documents required to be filed under Section 13, 14 or 15 of the Exchange Act in the manner and within the time periods required by the Exchange Act; and (ii) either (A) include in its quarterly reports on Form 10-Q and its annual reports on Form 10-K, a summary detailing, for the relevant reporting period, (1) the number of Shares sold through the Agent pursuant to this Agreement and (2) the net proceeds received by the Company from such sales or (B) prepare a prospectus supplement containing, or include in such other filing permitted by the Securities Act or Exchange Act (each an "**Interim Prospectus Supplement**"), such summary information and, at least once a quarter and subject to this Section 4, file such Interim Prospectus Supplement pursuant to Rule 424(b) under the Securities Act (and within the time periods required by Rule 424(b) and Rule 430B under the Securities Act)).

(b) Securities Act Compliance. After the date of this Agreement, the Company shall promptly advise the Agent in writing (i) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission relating to the Registration

Statement or the Prospectus; (ii) of the time and date of any filing of any post-effective amendment to the Registration Statement, any Rule 462(b) Registration Statement or any amendment or supplement to the Prospectus, any Free Writing Prospectus; (iii) of the time and date that any post-effective amendment to the Registration Statement or any Rule 462(b) Registration Statement becomes effective; and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto, any Rule 462(b) Registration Statement or any amendment or supplement to the Prospectus or of any order preventing or suspending the use of any Free Writing Prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Shares from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its best efforts to obtain the lifting of such order as soon as practicable. Additionally, the Company agrees that it shall comply with the provisions of Rule 424(b) and Rule 433, as applicable, under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under such Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(c) Amendments and Supplements to the Prospectus and Other Securities Act Matters. If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered to a purchaser, not misleading, or if in the opinion of the Agent or counsel for the Agent it is otherwise necessary to amend or supplement the Prospectus to comply with applicable law, including the Securities Act, the Company agrees (subject to Section 4(d) and Section 4(f)) to promptly prepare, file with the Commission and furnish at its own expense to the Agent, amendments or supplements to the Prospectus (including by filing a document incorporated by reference therein) so that the statements in the Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law including the Securities Act. Neither the Agent's consent to, or delivery of, any such amendment or supplement shall constitute a waiver of any of the Company's obligations under Section 4(d) and Section 4(f).

(d) Agent's Review of Proposed Amendments and Supplements. Prior to amending or supplementing the Registration Statement (including any Rule 462(b) Registration Statement) or the Prospectus (excluding any amendment or supplement through incorporation of any report filed under the Exchange Act), the Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each such proposed amendment or supplement, but only insofar as such proposed amendment or supplement relates to the transactions contemplated hereby, and the Company shall not file or use any such proposed amendment or supplement without the Agent's prior consent, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(e) Use of Free Writing Prospectus. Neither the Company nor the Agent has prepared, used, referred to or distributed, or will prepare, use, refer to or distribute, without the other party's

prior written consent, any “written communication” that constitutes a “free writing prospectus” as such terms are defined in Rule 405 under the Securities Act with respect to the offering contemplated by this Agreement (any such free writing prospectus being referred to herein as a “**Free Writing Prospectus**”).

(f) Free Writing Prospectuses. The Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed Free Writing Prospectus or any amendment or supplement thereto to be prepared by or on behalf of, used by, or referred to by the Company and the Company shall not file, use or refer to any proposed Free Writing Prospectus or any amendment or supplement thereto without the Agent’s consent, which shall not be unreasonably withheld, conditioned or delayed. The Company shall furnish to the Agent, without charge, as many copies of any Free Writing Prospectus prepared by or on behalf of, or used by the Company, as the Agent may reasonably request. If at any time when a prospectus is required by the Securities Act (including, without limitation, pursuant to Rule 173(d)) to be delivered in connection with sales of the Shares (but in any event if at any time through and including the date of this Agreement) there occurred or occurs an event or development as a result of which any Free Writing Prospectus prepared by or on behalf of, used by, or referred to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company shall promptly amend or supplement such Free Writing Prospectus to eliminate or correct such conflict or so that the statements in such Free Writing Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such subsequent time, not misleading, as the case may be; provided, however, that prior to amending or supplementing any such Free Writing Prospectus, the Company shall furnish to the Agent for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented Free Writing Prospectus and the Company shall not file, use or refer to any such amended or supplemented Free Writing Prospectus without the Agent’s consent, which shall not be unreasonably withheld, conditioned or delayed.

(g) Filing of Agent Free Writing Prospectuses. The Company shall not take any action that would result in the Agent or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a Free Writing Prospectus prepared by or on behalf of the Agent that the Agent otherwise would not have been required to file thereunder.

(h) Copies of Registration Statement and Prospectus. After the date of this Agreement through the last time that a prospectus is required by the Securities Act (including, without limitation, pursuant to Rule 173(d)) to be delivered in connection with sales of the Shares, the Company agrees to furnish the Agent with copies (which may be electronic copies) of the Registration Statement and each amendment thereto, and with copies of the Prospectus and each amendment or supplement thereto in the form in which it is filed with the Commission pursuant to the Securities Act or Rule 424(b) under the Securities Act, both in such quantities as the Agent may reasonably request from time to time; and, if the delivery of a prospectus is required under the Securities Act or under the blue sky or securities laws of any jurisdiction at any time on or prior to the applicable Settlement Date for any period set forth in an Issuance Notice in connection

with the offering or sale of the Shares and if at such time any event has occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it is necessary during such same period to amend or supplement the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, to notify the Agent and to request that the Agent suspend offers to sell Shares (and, if so notified, the Agent shall cease such offers as soon as practicable); and if the Company decides to amend or supplement the Registration Statement or the Prospectus as then amended or supplemented, to advise the Agent promptly by telephone (with confirmation in writing) and to prepare and cause to be filed promptly with the Commission an amendment or supplement to the Registration Statement or the Prospectus as then amended or supplemented that will correct such statement or omission or effect such compliance, including by filing a document incorporated by reference therein; provided, however, that if during such same period the Agent is required to deliver a prospectus in respect of transactions in the Shares, the Company shall promptly prepare and file with the Commission such an amendment or supplement.

(i) Blue Sky Compliance. The Company shall cooperate with the Agent and counsel for the Agent to qualify or register the Shares for sale under (or obtain exemptions from the application of) the state securities or blue sky laws or Canadian provincial securities laws of those jurisdictions designated by the Agent, shall comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Shares. The Company shall not be required to qualify as a foreign corporation or to take any action that would subject it to general service of process in any such jurisdiction where it is not presently qualified or where it would be subject to taxation as a foreign corporation. The Company will advise the Agent promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Shares for offering, sale or trading in any jurisdiction or any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its best efforts to obtain the withdrawal thereof as soon as practicable.

(j) Earnings Statement. As soon as practicable, the Company will make generally available to its security holders and to the Agent an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement which shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 under the Securities Act; provided that the Company shall be deemed to have furnished such statements to its security holders and the Agent to the extent they are filed on the Commission's EDGAR system or any successor to such system.

(k) Listing; Reservation of Shares. (a) The Company will use commercially reasonable efforts to maintain the listing of the Shares on the Principal Market; and (b) the Company will reserve and keep available during each period beginning on the first Trading Day of the selling period indicated in each Issuance Notice and ending on the second Trading Day after the earlier of (i) the last Trading Day of the applicable selling period and (ii) the date the applicable Issuance Notice is canceled, free of preemptive rights, Shares for the purpose of enabling the Company to satisfy its obligations under the respective Issuance Notice.

(l) Transfer Agent. The Company shall engage and maintain, at its expense, a registrar and transfer agent for the Shares.

(m) Due Diligence. During the term of this Agreement, the Company will reasonably cooperate with any reasonable due diligence review conducted by the Agent in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during normal business hours and at the Company's principal offices, as the Agent may reasonably request from time to time.

(n) Representations and Warranties. The Company acknowledges that each delivery of an Issuance Notice and each delivery of Shares on a Settlement Date shall be deemed to be (i) an affirmation to the Agent that the representations and warranties of the Company contained in or made pursuant to this Agreement are true and correct as of the date of such Issuance Notice or of such Settlement Date, as the case may be, as though made at and as of each such date, except as may be disclosed in the Prospectus (including any documents incorporated by reference therein and any supplements thereto); and (ii) an undertaking that the Company will advise the Agent if any of such representations and warranties will not be true and correct as of the Settlement Date for the Shares relating to such Issuance Notice, as though made at and as of each such date (except that such representations and warranties shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented relating to such Shares).

(o) Deliverables at Triggering Event Dates; Certificates. The Company agrees that on or prior to the date of the first Issuance Notice and, during the term of this Agreement after the date of the first Issuance Notice, upon:

(A) the filing of the Prospectus or the amendment or supplement of any Registration Statement or Prospectus (other than a prospectus supplement relating solely to an offering of securities other than the Shares or a prospectus filed pursuant to Section 4(a)(ii)(B)), by means of a post-effective amendment, sticker or supplement, but not by means of incorporation of documents by reference into the Registration Statement or Prospectus;

(B) the filing with the Commission of an annual report on Form 10-K or a quarterly report on Form 10-Q (including any Form 10-K/A or Form 10-Q/A containing amended financial information or a material amendment to the previously filed annual report on Form 10-K or quarterly report on Form 10-Q), in each case, of the Company; or

(C) the filing with the Commission of a current report on Form 8-K of the Company containing amended financial information (other than information "furnished" pursuant to Item 2.02 or 7.01 of Form 8-K or to provide disclosure pursuant to Item 8.01 of Form 8-K relating to reclassification of certain properties as discontinued operations in accordance with Statement of Financial Accounting Standards No. 144) that is material to the offering of Shares of the Company in the Agent's reasonable discretion;

(any such event, a "**Triggering Event Date**"), the Company shall furnish the Agent (but in the case of clause (C) above only if the Agent reasonably determines that the information contained in such current report on Form 8-K of the Company is material) with a certificate as of the Triggering Event Date, in the form attached as Exhibit B hereto, modified, as necessary, to relate

to the Registration Statement and the Prospectus as amended or supplemented, (A) confirming that the representations and warranties of the Company contained in this Agreement are true and correct, (B) confirming that the Company has performed all of its obligations hereunder to be performed on or prior to the date of such certificate and as to the matters set forth in Section 5(a)(iii) hereof, and (C) containing any other certification that the Agent shall reasonably request. The requirement to provide a certificate under this Section 4(o) shall be automatically waived for any Triggering Event Date occurring at a time when no Issuance Notice is pending or a suspension is in effect, which waiver shall continue until the earlier to occur of the date the Company delivers instructions for the sale of Shares hereunder (which for such calendar quarter shall be considered a Triggering Event Date) and the next occurring Triggering Event Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Shares following a Triggering Event Date when a suspension was in effect and did not provide the Agent with a certificate under this Section 4(o), then before the Company delivers the instructions for the sale of Shares or the Agent sells any Shares pursuant to such instructions, the Company shall provide the Agent with a certificate in conformity with this Section 4(o) dated as of the date that the instructions for the sale of Shares are issued.

(p) Legal Opinions. On or prior to the date of the first Issuance Notice and on or prior to each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) for which no waiver is applicable and excluding the date of this Agreement, a negative assurance letter and the written legal opinion of Davis Polk & Wardwell LLP, counsel to the Company, and the written legal opinion of Locke Lord LLP, intellectual property counsel to the Company, each dated the date of delivery, in form and substance reasonably satisfactory to Agent and its counsel, substantially similar to the form previously provided to the Agent and its counsel, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented. In lieu of such opinions for subsequent periodic filings, in the discretion of the Agent, the Company may furnish a reliance letter from such counsel to the Agent, permitting the Agent to rely on a previously delivered opinion letter, modified as appropriate for any passage of time or Triggering Event Date (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented as of such Triggering Event Date).

(q) Comfort Letter. On or prior to the date of the first Issuance Notice and on or prior to each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) for which no waiver is applicable and excluding the date of this Agreement, the Company shall cause the Accountants, the independent registered public accounting firm who has audited the financial statements included or incorporated by reference in the Registration Statement, to furnish the Agent a comfort letter, dated the date of delivery, in form and substance reasonably satisfactory to the Agent and its counsel, substantially similar to the form previously provided to the Agent and its counsel; provided, however, that any such comfort letter will only be required on the Triggering Event Date specified to the extent that the Triggering Event Date filing contains financial statements filed with the Commission under the Exchange Act and incorporated or deemed to be incorporated by reference into a Prospectus. If requested by the Agent, the Company shall also cause a comfort letter to be furnished to the Agent on the date of occurrence of any material transaction or event requiring the filing of a current report on Form 8-K containing material amended financial information of the Company, including the restatement of the Company's financial statements. The Company shall be required to furnish no more than

one comfort letter hereunder per each filing of an annual report on Form 10-K or a quarterly report on Form 10-Q.

(r) Secretary's Certificate. On or prior to the date of the first Issuance Notice and on or prior to each Triggering Event Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(o) for which no waiver is applicable, and excluding the date of this Agreement, the Company shall furnish the Agent a certificate executed by the Secretary of the Company, signing in such capacity, dated the date of delivery in the form attached as Exhibit C hereto (i) certifying that attached thereto are true and complete copies of the resolutions duly adopted by the Board of Directors of the Company authorizing the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby (including, without limitation, the issuance of the Shares pursuant to this Agreement), which authorization shall be in full force and effect on and as of the date of such certificate, (ii) certifying and attesting to the office, incumbency, due authority and specimen signatures of each Person who executed this Agreement for or on behalf of the Company, and (iii) containing any other certification that the Agent shall reasonably request.

(s) Agent's Own Account; Clients' Account. The Company consents to the Agent trading, in compliance with applicable law, in the Common Shares for the Agent's own account and for the account of its clients at the same time as sales of the Shares occur pursuant to this Agreement.

(t) Investment Limitation. The Company shall not invest, or otherwise use the proceeds received by the Company from its sale of the Shares in such a manner as would require the Company or any of its subsidiaries to register as an investment company under the Investment Company Act.

(u) Market Activities. The Company will not take, directly or indirectly, any action designed to or that might be reasonably expected to cause or result in stabilization or manipulation of the price of the Shares or any other reference security, whether to facilitate the sale or resale of the Shares or otherwise, and the Company will, and shall use commercially reasonable efforts to cause each of its Affiliates to, comply with all applicable provisions of Regulation M. If the limitations of Rule 102 of Regulation M ("**Rule 102**") do not apply with respect to the Shares or any other reference security pursuant to any exception set forth in Section (d) of Rule 102, then promptly upon notice from the Agent (or, if later, at the time stated in the notice), the Company will, and shall use commercially reasonable efforts to cause each of its Affiliates to, comply with Rule 102 as though such exception were not available but the other provisions of Rule 102 (as interpreted by the Commission) did apply. The Company shall promptly notify the Agent if it no longer meets the requirements set forth in Section (d) of Rule 102.

(v) Notice of Other Sale. Without the written consent of the Agent, the Company will not, directly or indirectly, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Shares or securities convertible into or exchangeable for Common Shares (other than Shares hereunder), warrants or any rights to purchase or acquire Common Shares, or effect a reverse stock split, recapitalization, share consolidation, reclassification or similar transaction affecting the outstanding Common Shares, during the period beginning on the third Trading Day immediately prior to the date on which any Issuance Notice is delivered to the Agent

hereunder and ending on the third Trading Day immediately following the Settlement Date with respect to Shares sold pursuant to such Issuance Notice; and will not directly or indirectly enter into any other “at the market” or continuous equity transaction to offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Shares (other than the Shares offered pursuant to this Agreement) or securities convertible into or exchangeable for Common Shares, warrants or any rights to purchase or acquire, Common Shares prior to the termination of this Agreement; provided, however, that such restrictions will not be required in connection with the Company’s (i) issuance or sale of Common Shares, options to purchase Common Shares or Common Shares issuable upon the exercise of options or other equity awards pursuant to any employee or director share option, incentive or benefit plan, share purchase or ownership plan, long-term incentive plan, dividend reinvestment plan, inducement award under the applicable rules of the Principal Market or other compensation plan of the Company or its subsidiaries, as in effect on the date of this Agreement or subsequently disclosed in filings by the Company available on EDGAR, (ii) issuance or sale of Common Shares issuable upon exchange, conversion or redemption of securities or the exercise or vesting of warrants, options or securities outstanding at the date of this Agreement or subsequently disclosed in filings by the Company available on EDGAR, (iii) modification of any outstanding options, warrants of any rights to purchase or acquire Common Shares, and (iv) issuance or sale of Common Shares in connection with an acquisition, joint venture, commercial or collaborative relationship or the acquisition or license by the Company of the securities, business, property or other assets of another person or entity or pursuant to any employee benefit plan as assumed by the Company in connection with any such acquisition (provided that the aggregate number of Common Shares that the Company may issue or sell pursuant to this clause (iv) shall not exceed 5% of the total number of Common Shares issued and outstanding immediately prior to such issuance or sale).

(w) Emerging Growth Company Status. During the Agency Period, the Company agrees to notify the Agent as soon as practicable upon the Company ceasing to be an Emerging Growth Company.

Section 5. CONDITIONS TO DELIVERY OF ISSUANCE NOTICES AND TO SETTLEMENT

(a) Conditions Precedent to the Right of the Company to Deliver an Issuance Notice and the Obligation of the Agent to Sell Shares. The right of the Company to deliver an Issuance Notice hereunder is subject to the satisfaction, on the date of delivery of such Issuance Notice, and the obligation of the Agent to use its commercially reasonable efforts to place Shares during the applicable period set forth in the Issuance Notice is subject to the satisfaction, on each Trading Day during the applicable period set forth in the Issuance Notice, of each of the following conditions:

(i) Accuracy of the Company’s Representations and Warranties; Performance by the Company. The Company shall have delivered the certificate required to be delivered pursuant to Section 4(o) on or before the date on which delivery of such certificate is required pursuant to Section 4(o). The Company shall have performed, satisfied and complied with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or prior to such date, including, but not limited to, the covenants contained in Section 4(p), Section 4(q) and Section 4(r).

(ii) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction or any self-regulatory organization having authority over the matters contemplated hereby that prohibits or directly and materially adversely affects any of the transactions contemplated by this Agreement, and no proceeding shall have been commenced that may have the effect of prohibiting or materially adversely affecting any of the transactions contemplated by this Agreement.

(iii) Material Adverse Effect. Except as disclosed in the Prospectus and the Time of Sale Information, (a) in the judgment of the Agent there shall not have occurred any Material Adverse Effect; and (b) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not indicate the direction of the possible change, in the rating accorded any securities of the Company or any of its subsidiaries by any “nationally recognized statistical rating organization” as such term is defined for purposes of Section 3(a)(62) of the Exchange Act.

(iv) No Suspension of Trading in or Delisting of Common Shares; Other Events. The trading of the Common Shares (including without limitation the Shares) shall not have been suspended by the Commission, the Principal Market or FINRA and the Common Shares (including without limitation the Shares) shall have been approved for listing or quotation on and shall not have been delisted from the Principal Market or any of its constituent markets. There shall not have occurred (and be continuing in the case of occurrences under clauses (i) and (ii) below) any of the following: (i) trading or quotation in any of the Company’s securities shall have been suspended or limited by the Commission or by the Principal Market or trading in securities generally on the Principal Market shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges by the Commission or the FINRA; (ii) a general banking moratorium shall have been declared by any of federal or New York, authorities; or (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States’ or international political, financial or economic conditions, as in the judgment of the Agent is material and adverse and makes it impracticable to market the Shares in the manner and on the terms described in the Prospectus or to enforce contracts for the sale of securities.

(b) Documents Required to be Delivered on each Issuance Notice Date. The Agent’s obligation to use its commercially reasonable efforts to place Shares hereunder shall additionally be conditioned upon the delivery to the Agent on or before the Issuance Notice Date of a certificate in form and substance reasonably satisfactory to the Agent, executed by the principal executive officer or principal financial officer of the Company, to the effect that all conditions to the delivery of such Issuance Notice shall have been satisfied as at the date of such certificate (which certificate shall not be required if the foregoing representations shall be set forth in the Issuance Notice or in the certificate described in Section 4(o)).

(c) No Misstatement or Material Omission. The Agent shall not have advised the Company that the Registration Statement, the Prospectus or the Time of Sale Information, or any amendment or supplement thereto, contains an untrue statement of fact that in the Agent’s

reasonable opinion is material, or omits to state a fact that in the Agent's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) Agent Counsel Legal Opinion. Agent shall have received from Cooley LLP, counsel for Agent, such opinion or opinions, on or before the date on which the delivery of the Company counsel legal opinion is required pursuant to Section 4(p), with respect to such matters as Agent may reasonably require, and the Company shall have furnished to such counsel such documents as they may reasonably request for enabling them to pass upon such matters.

Section 6. INDEMNIFICATION AND CONTRIBUTION

(a) Indemnification of the Agent. The Company agrees to indemnify and hold harmless the Agent, its officers and employees, and each person, if any, who controls the Agent within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which the Agent or such officer, employee or controlling person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact contained in any Free Writing Prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading and to reimburse the Agent and each such officer, employee and controlling person for any and all documented expenses (including the reasonable and documented fees and disbursements of counsel chosen by the Agent) as such expenses are reasonably incurred by the Agent or such officer, employee or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; provided, however, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement, any such Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information described in subsection (b) below. The indemnity agreement set forth in this Section 6(a) shall be in addition to any liabilities that the Company may otherwise have.

(b) Indemnification of the Company, its Directors and Officers. The Agent agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning

of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which the Company or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Shares have been offered or sold or at common law or otherwise (including in settlement of any litigation), arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, including any information deemed to be a part thereof pursuant to Rule 430B under the Securities Act, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) any untrue statement or alleged untrue statement of a material fact contained in any Free Writing Prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; but, for each of (i) and (ii) above, only to the extent arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement, any such Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information furnished by the Agent to the Company consists of the information set forth in the first sentence of the ninth paragraph under the caption "Plan of Distribution" in the Prospectus, and to reimburse the Company and each such director, officer and controlling person for any and all documented expenses (including the reasonable and documented fees and disbursements of one counsel chosen by the Company) as such expenses are reasonably incurred by the Company or such officer, director or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The indemnity agreement set forth in this Section 6(b) shall be in addition to any liabilities that the Agent or the Company may otherwise have.

(c) Notifications and Other Indemnification Procedures. Promptly after receipt by an indemnified party under this Section 6 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 6, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party for contribution or otherwise than under the indemnity agreement contained in this Section 6 or to the extent it is not prejudiced as a proximate result of such failure. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; provided, however, if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties

shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 6 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with local counsel), representing the indemnified parties who are parties to such action), which counsel (together with any local counsel) for the indemnified parties shall be selected by the indemnified party (in the case of counsel for the indemnified parties referred to in Section 6(a) and Section 6(b) above), (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

(d) Settlements. The indemnifying party under this Section 6 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 6(c) hereof, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request; and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding.

(e) Contribution. If the indemnification provided for in this Section 6 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Agent, on the other hand, from the offering of the Shares pursuant to this Agreement; or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Agent, on the other

hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Agent, on the other hand, in connection with the offering of the Shares pursuant to this Agreement shall be deemed to be in the same respective proportions as the total gross proceeds from the offering of the Shares (before deducting expenses) received by the Company bear to the total commissions received by the Agent. The relative fault of the Company, on the one hand, and the Agent, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Agent, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 6(c), any legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 6(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 6(e); provided, however, that no additional notice shall be required with respect to any action for which notice has been given under Section 6(c) for purposes of indemnification.

The Company and the Agent agree that it would not be just and equitable if contribution pursuant to this Section 6(e) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 6(e).

Notwithstanding the provisions of this Section 6(e), the Agent shall not be required to contribute any amount in excess of the Selling Commission received by the Agent in connection with the offering contemplated hereby. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6(e), each officer and employee of the Agent and each person, if any, who controls the Agent within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as the Agent, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company.

Section 7. TERMINATION & SURVIVAL

(a) Term. Subject to the provisions of this Section 7, the term of this Agreement shall continue from the date of this Agreement until the end of the Agency Period, unless earlier terminated by the parties to this Agreement pursuant to this Section 7.

(b) Termination; Survival Following Termination.

(i) Either party may terminate this Agreement prior to the end of the Agency Period, by giving written notice as required by this Agreement, upon ten (10) Trading Days' notice to the other party; provided that, (A) if the Company terminates this Agreement after the Agent confirms to the Company any sale of Shares, the Company shall remain obligated to comply with Section 3(b)(v) with respect to such Shares and (B) Section 2, Section 3(d), Section 6, Section 7 and Section 8 shall survive termination of this Agreement. If termination shall occur prior to the Settlement Date for any sale of Shares, such sale shall nevertheless settle in accordance with the terms of this Agreement.

(ii) In addition to the survival provision of Section 7(b)(i), the respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the Agent set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of the Agent or the Company or any of its or their partners, officers or directors or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Shares sold hereunder and any termination of this Agreement.

Section 8. MISCELLANEOUS

(a) Press Releases and Disclosure. The Company may issue a press release describing the material terms of the transactions contemplated hereby as soon as practicable following the date of this Agreement, and may file with the Commission a Current Report on Form 8 K, with this Agreement attached as an exhibit thereto, describing the material terms of the transactions contemplated hereby, and the Company shall consult with the Agent prior to making such disclosures, and the parties hereto shall use all commercially reasonable efforts, acting in good faith, to agree upon a text for such disclosures that is reasonably satisfactory to all parties hereto. No party hereto shall issue thereafter any press release or like public statement (including, without limitation, any disclosure required in reports filed with the Commission pursuant to the Exchange Act) related to this Agreement or any of the transactions contemplated hereby without the prior written approval of the other party hereto, except as may be necessary or appropriate in the reasonable opinion of the party seeking to make disclosure to comply with the requirements of applicable law or stock exchange rules. If any such press release or like public statement is so required, the party making such disclosure shall consult with the other party prior to making such disclosure, and the parties shall use all commercially reasonable efforts, acting in good faith, to agree upon a text for such disclosure that is reasonably satisfactory to all parties hereto.

(b) No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (i) the transactions contemplated by this Agreement, including the determination of any fees, are arm's-length commercial transactions between the Company and the Agent, (ii) when acting as a principal under this Agreement, the Agent is and has been acting solely as a principal is not the agent or fiduciary of the Company, or its stockholders, creditors, employees or any other party, (iii) the Agent has not assumed nor will assume an advisory or fiduciary responsibility in favor of the Company with respect to the transactions contemplated hereby or the process leading thereto (irrespective of whether the Agent has advised or is currently advising the Company on other matters) and the Agent does not have any obligation to the Company with respect to the transactions contemplated hereby except the obligations expressly set forth in this Agreement, (iv) the Agent and its Affiliates may be engaged in a broad range of transactions that involve interests

that differ from those of the Company, and (v) the Agent has not provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

(c) Research Analyst Independence. The Company acknowledges that the Agent's research analysts and research departments are required to and should be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and as such the Agent's research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company or the offering that differ from the views of their respective investment banking divisions. The Company understands that the Agent is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that may be the subject of the transactions contemplated by this Agreement.

(d) Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered, sent via electronic mail (if applicable) or telecopied and confirmed to the parties hereto as follows:

If to the Agent:

Jefferies LLC
520 Madison Avenue
New York, NY 10022
Facsimile: (646) 786-5719
Attention: General Counsel

with a copy (which shall not constitute notice) to:

Cooley LLP
55 Hudson Yards
New York, NY 10001
Attention: Daniel I. Goldberg
E-mail: dgoldberg@cooley.com; josh.kaufman@cooley.com

If to the Company:

Vaxxinity, Inc.
505 Odyssey Way
Merritt Island, FL32953
Attention: General Counsel
E-mail: legal@vaxxinity.com

with a copy (which shall not constitute notice) to:

Davis Polk & Wardwell LLP
450 Lexington Avenue

New York, NY 10017
Attention: Yasin Keshvargar
E-mail: yasin.keshvargar@davispolk.com

Any party hereto may change the address for receipt of communications by giving written notice to the others in accordance with this Section 8(d).

(e) Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 6, and in each case their respective successors, and no other person will have any right or obligation hereunder. The term “successors” shall not include any purchaser of the Shares as such from the Agent merely by reason of such purchase.

(f) Partial Unenforceability. The invalidity or unenforceability of any Article, Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Article, Section, paragraph or provision hereof. If any Article, Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

(g) Governing Law Provisions. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court, as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

(h) General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and may be delivered by facsimile transmission or by electronic delivery of a portable document format (PDF) file (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docuSign.com). This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Article

and Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

[Signature Page Immediately Follows]

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to the Company the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms

Very truly yours,

VAXXINITY, INC.

By: /s/ Mei Mei Hu
Name: Mei Mei Hu
Title: Chief Executive Officer

The foregoing Agreement is hereby confirmed and accepted by the Agent in New York, New York as of the date first above written.

JEFFERIES LLC

By: /s/ Michael Magarro
Name: Michael Magarro
Title: Managing Director

EXHIBIT A
ISSUANCE NOTICE

[Date]

Jefferies LLC
520 Madison Avenue
New York, New York 10022

Attn: [_____]

Reference is made to the Open Market Sale AgreementSM between Vaxxinity, Inc. (the “**Company**”) and Jefferies LLC (the “**Agent**”) dated as of August 9, 2023. The Company confirms that all conditions to the delivery of this Issuance Notice are satisfied as of the date hereof.

Date of Delivery of Issuance Notice (determined pursuant to Section 3(b)(i)):

Issuance Amount (equal to the total Sales Price for such Shares):

\$ _____

Maximum number of Shares to be sold (notwithstanding a higher Sale Amount)

Number of days in selling period:

First date of selling period:

Last date of selling period:

Settlement Date(s) if other than standard T+2 settlement:

Floor Price Limitation (in no event less than \$1.00 without the prior written consent of the Agent, which consent may be withheld in the Agent’s sole discretion): \$ ____ per share

Comments: _____

By: _____
Name:
Title:

Exhibit B

Form of Officer's Certificate Pursuant to Section 4(o)

The undersigned, the duly qualified and elected [•] of Vaxxinity, Inc., a Delaware corporation (the "**Company**"), does hereby certify in such capacity and on behalf of the Company, pursuant to Section 4(o) of the Open Market Sale AgreementSM, dated August 9, 2023, between the Company and Jefferies LLC (the "**Sale Agreement**"), that to the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 2 of the Sale Agreement are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof; provided, however that such representations and warranties are qualified by the disclosure included or incorporated by reference in the Registration Statement and Prospectus (including any documents incorporated by reference therein and any supplements thereto); and

(ii) The Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Sale Agreement at or prior to the date hereof.

Davis Polk & Wardwell LLP and Cooley LLP are entitled to rely on this certificate in connection with the respective opinions such firms are rendering pursuant to the Sale Agreement. Capitalized terms used herein without definition shall have the meanings given to such terms in the Sale Agreement.

VAXXINITY, INC.

By: _____

Name: _____

Title: _____

Date: [•]

Exhibit C

Form of Secretary's Certificate Pursuant to Section 4(o)

The undersigned, Secretary of Vaxxinity, Inc., a Delaware corporation (the "**Company**"), does hereby certify in such capacity and on behalf of the Company, pursuant to Section 4(o) of the Open Market Sale AgreementSM, dated August 9, 2023, between the Company and Jefferies LLC (the "**Sale Agreement**"), that to the knowledge of the undersigned:

1. Attached hereto as Appendix A is a true, correct and complete copy of the Company's certificate of incorporation dated [●] (the "**Certificate of Incorporation**"), filed with the Delaware Secretary of State on [●], as in full force and effect as of the date hereof. Since such date, no amendment to the Certificate of Incorporation has been approved by the Board of Directors of the Company (the "**Board of Directors**") or the shareholders of the Company or filed with the Delaware Secretary of State.

2. Attached hereto as Appendix B is a true, correct and complete copy of the bylaws of the Company as in effect at the date hereof and at all times since [●]. No action has been taken by the Company or its stockholders, directors or officers to effect or authorize any amendment or other modification to the bylaws.

3. No proceeding for the dissolution, merger, sale, consolidation or liquidation of the Company or for the sale of all or substantially all of its assets is pending or, to the best of my knowledge, threatened and no such proceeding is contemplated by the Company.

4. Attached hereto as Appendices C-1 and C-2, respectively, are true, correct and complete copies of written resolutions duly adopted by (i) the Board of Directors on August [●], 2023 and (ii) the committee designated by the Board of Directors on August [●], 2023. Such resolutions have not been amended or modified, are in full force and effect in the form adopted and are the only resolutions adopted by the Board of Directors or by any committee of or designated by the Board of Directors relating to (i) the Company's Registration Statement on Form S-3 (File No. 333-[●]) (the "**Registration Statement**") filed with the Securities and Exchange Commission (the "**SEC**"), and (ii) the execution and delivery of the Sale Agreement and the consummation of the transactions contemplated thereunder (including, without limitation, the sale of the Common Shares pursuant to such agreement).

5. Each person who, as a director or officer of the Company, signed (a) the Registration Statement, (b) the Sale Agreement and (c) any other document or certificate delivered under the Sale Agreement in connection with the transactions contemplated thereunder was at the respective times of such signing and delivery and, in the case of the document referred to under (a) above, was at the time of filing such Registration Statement with the SEC, duly elected or appointed and acting as such director or officer and was duly authorized to execute and deliver such document on behalf of the Company, and the signatures of such persons appearing on such documents are their genuine signatures or true facsimiles thereof.

6. The minutes and resolutions of the Company relating to all proceedings of the shareholders and the Board of Directors (and any committee of the Board of Directors) of the Company made available to Davis Polk & Wardwell LLP and Cooley LLP are the original

minutes and resolutions of the Company, or are true, correct and complete copies thereof, with respect to all such proceedings of said shareholders, Board of Directors and committees of the Board of Directors of the Company since January 1, 2020 through the date hereof. The minutes, resolutions and other documents of the Company made available to Davis Polk & Wardwell LLP and Cooley LLP were true, correct and complete in all respects. There have been no material changes, additions or alterations in said minutes, resolutions and other documents that have not been disclosed to Davis Polk & Wardwell LLP and Cooley LLP in writing.

7. The Sale Agreement, as executed and delivered by the Company, is in substantially the form approved by one or more of the Company's officers pursuant to the resolutions referred to in paragraph 4 above, under authority delegated by the Board of Directors, and has been duly executed and delivered on behalf of the Company by an appropriate officer of the Company.

8. American Stock Transfer & Trust Company, LLC has been duly appointed by the Company to serve as the transfer agent and registrar for the Common Shares and, as of the date hereof, serves in such capacity for the Common Shares.

Davis Polk & Wardwell LLP and Cooley LLP are entitled to rely on this certificate in connection with the respective opinions such firms are rendering pursuant to the Sale Agreement. Capitalized terms used herein without definition shall have the meanings given to such terms in the Sale Agreement.

Schedule A

Notice Parties

The Company

Mei Mei Hu

The Agent

Michael Magarro

Donald Lynaugh

VAXXINITY, INC.

INDENTURE

Dated as of []

[], as Trustee

TABLE OF CONTENTS

Page

Article 1

Definition and Incorporation by Reference

<u>Section 1.01. Definitions</u>	5
<u>Section 1.02. Other Definitions</u>	9
<u>Section 1.03. Incorporation by Reference of Trust Indenture Act</u>	10
<u>Section 1.04. Rules of Construction</u>	10

Article 2

The Securities

<u>Section 2.01. Issuable in Series</u>	11
<u>Section 2.02. Establishment of Terms of Series of Securities</u>	11
<u>Section 2.03. Execution and Authentication</u>	13
<u>Section 2.04. Registrar and Paying Agent</u>	14
<u>Section 2.05. Paying Agent to Hold Money in Trust</u>	15
<u>Section 2.06. Securityholder Lists</u>	15
<u>Section 2.07. Exchange and Registration of Transfer</u>	15
<u>Section 2.08. Mutilated, Destroyed, Lost and Stolen Securities</u>	16
<u>Section 2.09. Outstanding Securities</u>	17
<u>Section 2.10. Treasury Securities</u>	17
<u>Section 2.11. Temporary Securities</u>	17
<u>Section 2.12. Cancellation</u>	18
<u>Section 2.13. Defaulted Interest</u>	18
<u>Section 2.14. Registered Global Securities</u>	18
<u>Section 2.15. Computation of Interest</u>	19
<u>Section 2.16. CUSIP and ISIN Numbers</u>	19

Article 3

Redemption

<u>Section 3.01. Notice to Trustee</u>	19
<u>Section 3.02. Selection of Securities to be Redeemed</u>	19
<u>Section 3.03. Notice of Redemption</u>	20
<u>Section 3.04. Effect of Notice of Redemption</u>	20
<u>Section 3.05. Deposit of Redemption Price</u>	20
<u>Section 3.06. Securities Redeemed in Part</u>	21

Article 4

Covenants

<u>Section 4.01. Payment of Principal and Interest</u>	21
<u>Section 4.02. SEC Reports</u>	21
<u>Section 4.03. Compliance Certificate</u>	21
<u>Section 4.04. Stay, Extension and Usury Laws</u>	21
<u>Section 4.05. Corporate Existence</u>	21
<u>Section 4.06. Maintenance of Office or Agency</u>	21
<u>Section 4.07. Money For Securities Payments to be Held in Trust</u>	22
<u>Section 4.08. Waiver of Certain Covenants</u>	23

Article 5
Successors

<u>Section 5.01. When Company May Merge, Etc</u>	23
<u>Section 5.02. Successor Corporation Substituted</u>	23

Article 6
Defaults and Remedies

<u>Section 6.01. Events of Default</u>	23
<u>Section 6.02. Acceleration of Maturity; Rescission and Annulment</u>	24
<u>Section 6.03. Collection of Indebtedness and Suits for Enforcement by Trustee</u>	26
<u>Section 6.04. Trustee May File Proofs of Claim</u>	27
<u>Section 6.05. Trustee May Enforce Claims without Possession of Securities</u>	27
<u>Section 6.06. Application of Money Collected</u>	27
<u>Section 6.07. Limitation on Suits</u>	28
<u>Section 6.08. Unconditional Right of Holders to Receive Principal and Interest</u>	28
<u>Section 6.09. Restoration of Rights and Remedies</u>	28
<u>Section 6.10. Rights and Remedies Cumulative</u>	28
<u>Section 6.11. Delay or Omission Not Waiver</u>	29
<u>Section 6.12. Control by Holders</u>	29
<u>Section 6.13. Waiver of Past Defaults</u>	29
<u>Section 6.14. Undertaking for Costs</u>	29

Article 7
Trustee

<u>Section 7.01. Duties of Trustee</u>	30
<u>Section 7.02. Rights of Trustee</u>	31
<u>Section 7.03. Individual Rights of Trustee</u>	32
<u>Section 7.04. Trustee's Disclaimer</u>	32
<u>Section 7.05. Notice of Defaults</u>	32
<u>Section 7.06. Reports by Trustee to Holders</u>	32
<u>Section 7.07. Compensation and Indemnity</u>	32
<u>Section 7.08. Replacement of Trustee</u>	33
<u>Section 7.09. Successor Trustee by Merger, etc</u>	34
<u>Section 7.10. Eligibility; Disqualification</u>	34
<u>Section 7.11. Preferential Collection of Claims against Company</u>	34

Article 8
Satisfaction and Discharge; Defeasance

<u>Section 8.01. Satisfaction and Discharge of Indenture</u>	34
<u>Section 8.02. Application of Trust Funds; Indemnification</u>	35
<u>Section 8.03. Legal Defeasance of Securities of any Series</u>	35
<u>Section 8.04. Covenant Defeasance</u>	37
<u>Section 8.05. Repayment to Company</u>	38
<u>Section 8.06. Effect of Subordination Provisions</u>	38

Article 9
Amendments and Waivers

<u>Section 9.01. Without Consent of Holders</u>	38
<u>Section 9.02. With Consent of Holders</u>	39

<u>Section 9.03. Limitations</u>	39
<u>Section 9.04. Compliance with Trust Indenture Act</u>	40
<u>Section 9.05. Revocation and Effect of Consents</u>	40
<u>Section 9.06. Notation on or Exchange of Securities</u>	40
<u>Section 9.07. Trustee Protected</u>	41
 <u>Article 10</u> <u>Subordination of Securities</u> 	
<u>Section 10.01. Agreement to Subordinate</u>	41
 <u>Article 11</u> <u>Miscellaneous</u> 	
<u>Section 11.01. Trust Indenture Act Controls</u>	41
<u>Section 11.02. Notices</u>	41
<u>Section 11.03. Communication by Holders with Other Holders</u>	42
<u>Section 11.04. Certificate and Opinion as to Conditions Precedent</u>	42
<u>Section 11.05. Statements Required in Certificate or Opinion</u>	42
<u>Section 11.06. Rules by Trustee and Agents</u>	42
<u>Section 11.07. Legal Holidays</u>	42
<u>Section 11.08. No Recourse Against Others</u>	43
<u>Section 11.09. Counterparts</u>	43
<u>Section 11.10. Governing Laws; Waiver of Jury Trial</u>	43
<u>Section 11.11. No Adverse Interpretation of Other Agreements</u>	43
<u>Section 11.12. Successors</u>	43
<u>Section 11.13. Severability</u>	43
<u>Section 11.14. Table of Contents, Headings, Etc</u>	43
<u>Section 11.15. Securities in a Foreign Currency</u>	43
<u>Section 11.16. Judgment Currency</u>	44
<u>Section 11.17. Acts of Holders</u>	44
<u>Section 11.18. Force Majeure</u>	45
 <u>Article 12</u> <u>Sinking Funds</u> 	
<u>Section 12.01. Applicability of Article</u>	45
<u>Section 12.02. Satisfaction of Sinking Fund Payments with Securities</u>	46
<u>Section 12.03. Redemption of Securities for Sinking Fund</u>	46

Reconciliation and tie between Trust Indenture Act of 1939 and Indenture, dated as of [].

§ 310(a)	7.10
(1).....(a)(2).....	7.10
(a)(3).....	Not Applicable
(a)(4).....	Not Applicable
(a)(5).....	7.10
(b).....	7.10
§ 311(a).....	7.11
(b).....	7.11
§ 312(a).....	2.06
(b).....	11.03
(c).....	11.03
§ 313(a).....	7.06
(b)(1).....	7.06
(b)(2).....	7.06
(c).....	7.06
(d).....	7.06
§ 314(a).....	4.02, 4.03
(b).....	Not Applicable
(c)(1).....	11.04
(c)(2).....	11.04
(c)(3).....	Not Applicable
(d).....	Not Applicable
(e).....	11.05
(f).....	Not Applicable
§ 315(a).....	7.01
(b).....	7.05
(c).....	7.01
(d).....	7.01
(e).....	6.14
§ 316(a).....	2.10
(a)(1)(A).....	6.12
(a)(1)(B).....	6.13
(a)(2).....	Not Applicable
(b).....	6.08
(c).....	9.05
§ 317(a).....	6.03
(1).....(a)(2).....	6.04
(b).....	2.05
§ 318(a).....	11.01

Note: This reconciliation and tie shall not, for any purpose, be deemed to be part of the Indenture.

Indenture dated as of [], between Vaxxinity, Inc., a Delaware corporation (the “Company”), and [] (the “Trustee”).

Each party agrees as follows for the benefit of the other party and for the equal and ratable benefit of the Holders of the Securities issued under this Indenture.

ARTICLE 1
DEFINITION AND INCORPORATION BY REFERENCE

Section 1.01. Definitions.

“Additional Amounts” means any additional amounts which are required hereby or by any Security, under circumstances specified herein or therein, to be paid by the Company in respect of certain taxes imposed on Holders specified therein and which are owing to such Holders.

“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 the purposes of this definition, “control” when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Agent” means any Registrar, Paying Agent, co-agent, co-registrar or Service Agent.

“Authorized Newspaper” means a newspaper in an official language of the country of publication customarily published at least once a day for at least five days in each calendar week and of general circulation in the place in connection with which the term is used. If it shall be impractical in the opinion of the Trustee to make any publication of any notice required hereby in an Authorized Newspaper, any publication or other notice in lieu thereof that is made or given by the Trustee shall constitute a sufficient publication of such notice.

“Bearer” means anyone in possession from time to time of a Bearer Security.

“Bearer Global Security” or “Bearer Global Securities” means a Bearer Security or Securities, as the case may be, in the form established pursuant to Section 2.02 evidencing all or part of a Series of Bearer Securities, deposited with a common depository for Euroclear Bank S.A./N.V., as operator of the Euroclear System and/or Clearstream Banking, société anonyme, Luxembourg.

“Bearer Security” means any Security, including any interest coupon appertaining thereto, that does not provide for the identification of the Holder thereof.

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

“Board Resolution” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been adopted by the Board of Directors or pursuant to authorization by the Board of Directors and to be in full force and effect on the date of the certificate and delivered to the Trustee.

“Business Day” means, unless otherwise provided by Board Resolution, Officers’ Certificate or supplemental indenture hereto for a particular Series, each day which is not a Legal Holiday.

“Capital Stock” of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) equity of such Person, including any Preferred Stock, but excluding any debt securities convertible into such equity.

“Company” means the party named as such above until a successor replaces it and thereafter means the successor.

“Company Order” means a written order signed in the name of the Company by two Officers, one of whom must be the Company’s principal executive officer, principal financial officer or principal accounting officer.

“Company Request” means a written request signed in the name of the Company by its Chairman of the Board of Directors, principal executive officer, principal financial officer, principal accounting officer, a President or a Vice President, and by its Treasurer, an Assistant Treasurer, its Secretary or an Assistant Secretary, and delivered to the Trustee.

“Corporate Trust Office” means the office of the Trustee at which at any particular time its corporate trust business relating to this Indenture shall be principally administered, which as of the date of this Indenture shall be located at:

[].

“Debt” of any Person as of any date means, without duplication, all indebtedness of such Person in respect of borrowed money, including all interest, fees and expenses owed in respect thereto (whether or not the recourse of the lender is to the whole of the assets of such Person or only to a portion thereof), or evidenced by bonds, notes, debentures or similar instruments.

“Default” means any event which is, or after notice or passage of time would be, an Event of Default.

“Depositary” means, with respect to the Securities of any Series issuable or issued in whole or in part in the form of one or more Registered Global Securities, the Person designated as Depositary for such Series by the Company, which Depositary shall be a clearing agency registered under the Exchange Act; and if at any time there is more than one such Person, “Depositary” as used with respect to the Securities of any Series shall mean the Depositary with respect to the Securities of such Series.

“Discount Security” means any Security that provides for an amount less than the stated principal amount thereof to be due and payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.02.

“Dollars” means the currency of the United States of America.

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

“Foreign Currency” means any currency or currency unit issued by a government other than the government of the United States of America.

“Foreign Government Obligations” means with respect to Securities of any Series that are denominated in a Foreign Currency, (i) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by or acting as an agency or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which, in either case under clauses (i) or (ii), are not callable or redeemable at the option of the issuer thereof.

“Holder” or “Securityholder” means a Person in whose name a Security is registered in the Register or the holder of a Bearer Security.

“Indenture” means this Indenture as originally executed and delivered and as supplemented or amended from time to time and shall include the form and terms of particular Series of Securities established as contemplated hereunder.

“interest” with respect to any Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“Maturity,” when used with respect to any Security or installment of principal thereof, means the date on which the principal of such Security or such installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption, notice of option to elect repayment or otherwise.

“Officer” means the Chairman of the Board, the principal executive officer, the principal financial officer, the principal accounting officer, the President, any Vice-President, the Treasurer, the Secretary, any Assistant Treasurer or any Assistant Secretary of the Company.

“Officers’ Certificate” means a certificate signed by two Officers, one of whom must be the Company’s principal executive officer, principal financial officer or principal accounting officer.

“Opinion of Counsel” means a written opinion of legal counsel who is reasonably acceptable to the Trustee. The counsel may be an employee of or counsel to the Company or the Trustee.

“Person” means any individual, corporation, partnership, joint venture, association, limited liability company, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“Place of Payment,” when used with respect to the Securities of any Series, means the place or places specified in accordance with Section 2.02 where the principal of and any premium and interest on the Securities of that Series are payable, or if not so specified, in accordance with Section 4.06.

“Preferred Stock,” as applied to the Capital Stock of any Person, means Capital Stock of any class or classes (however designated) that is preferred as to the payment of dividends, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over shares of Capital Stock of any other class of such Person.

“principal” of a Security means the principal of the Security plus, when appropriate, the premium, if any, on, and any Additional Amounts in respect of, the Security.

“Registered Global Security” or “Registered Global Securities” means a Security or Securities, as the case may be, in the form established pursuant to Section 2.02 evidencing all or part of a Series of Securities, issued to the Depositary for such Series or its nominee, and registered in the name of such Depositary or nominee.

“Registered Securities” means any Security registered on the Register of the Company.

“SEC” means the Securities and Exchange Commission.

“Securities” means the debentures, notes or other debt instruments of the Company of any Series authenticated and delivered under this Indenture.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, as in effect from time to time.

“Senior Debt” means the principal of, premium, if any, unpaid interest, and all fees and other amounts payable in connection with the following, whether outstanding on the date hereof or thereafter created, incurred, assumed or guaranteed, on (x) the Debt of the Company, for money borrowed other than (a) any Debt of the Company which when incurred and without respect to any election under Section 1111(b) of the Federal Bankruptcy Code, was without recourse to the Company, (b) any Debt of the Company to any of its Subsidiaries, (c) Debt to any employee of the Company, (d) any liability for taxes and (e) Trade Payables, unless the instrument creating or evidencing the same or pursuant to which the same is outstanding provides that such Debt is not senior or prior in right of payment to the Securities, (y) all obligations of the Company under interest rate, currency and commodity swaps, caps, floors, collars, hedge arrangements, forward contracts or similar agreements or arrangements and (z) renewals, extensions, modifications and refundings of any such Debt. This definition may be modified or superseded by a supplemental indenture.

“Senior Securities” means Securities other than Subordinated Securities.

“Series” or “Series of Securities” means each series of debentures, notes or other debt instruments of the Company created pursuant to Sections 2.01 and 2.02 hereof.

“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 as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable (without regard for any provisions for acceleration, redemption prepayment or otherwise).

“Subordinated Securities” means Securities that by the terms established pursuant to Section 2.02(i) are subordinated in right of payment to Senior Debt of the Company.

“Subordination Provisions,” when used with respect to the Subordinated Securities of any Series, shall have the meaning established pursuant to Section 2.02(i) with respect to the Subordinated Securities of such Series.

“Subsidiary” of any Person means any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of Capital Stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by (i) such Person, (ii) such Person and one or more Subsidiaries of such Person or (iii) one or more Subsidiaries of such Person.

“TIA” means the Trust Indenture Act of 1939 (15 U.S. Code §§ 77aaa -77bbbb) as in effect on the date of this Indenture; provided, however, that in the event the Trust Indenture Act of 1939 is amended after such date, “TIA” means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

“Trade Payables” means accounts payable or any other Debt or monetary obligations to trade creditors created or assumed by the Company or any Subsidiary of the Company in the ordinary course of business in connection with the receipt of materials or services.

“Trust Officer” means any officer within the Corporate Trust Office of the Trustee with direct responsibility for the administration of this Indenture.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any Series shall mean the Trustee with respect to Securities of that Series.

“U.S. Government Obligations” means direct obligations (or certificates representing an ownership interest in such obligations) of the United States of America (including any agency or instrumentality thereof) for the payment of which the full faith and credit of the United States of America is pledged and which are not callable or redeemable at the issuer’s option.

Section 1.02. Other Definitions.

Term	Defined in Section
“Bankruptcy Law”	6.01
“Custodian”	6.01
“Event of Default”	6.01
“Judgment.Currency”	11.16
“Legal Holiday”	11.07
“mandatory sinking fund payment”	12.01
“Market Exchange Rate”	11.15
“New York Banking Day”	11.16
“optional sinking fund payment”	12.01
“Paying Agent”	2.04
“Register”	2.04
“Registrar”	2.04
“Required.Currency”	11.16
“Service Agent”	2.04
“successor person”	5.01

Section 1.03. Incorporation by Reference of Trust Indenture Act. Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture. The following TIA terms used in this Indenture have the following meanings:

“Commission” means the SEC.

“indenture securities” means the Securities.

“indenture security holder” means a Securityholder.

“indenture to be qualified” means this Indenture.

“indenture trustee” or “institutional trustee” means the Trustee.

“obligor” on the indenture securities means the Company and any successor obligor upon the Securities.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule under the TIA and not otherwise defined herein are used herein as so defined.

Section 1.04. Rules of Construction. Unless the context otherwise requires:

(i) a term has the meaning assigned to it;

(ii) an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles;

(iii) references to “generally accepted accounting principles” shall mean generally accepted accounting principles in effect as of the time when and for the period as to which such accounting principles are to be applied;

(iv) or” is not exclusive; and

(v) words in the singular include the plural, and in the plural include the singular.

ARTICLE 2
THE SECURITIES

Section 2.01. Issuable in Series. 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. All Securities of a Series shall be identical except as may be set forth in a Board Resolution, a supplemental indenture or an Officers’ Certificate detailing the adoption of the terms thereof pursuant to the authority granted under a Board Resolution. In the case of Securities of a Series to be issued from time to time, the Board Resolution, Officers’ Certificate or supplemental indenture may provide for the method by which specified terms (such as interest rate, maturity date, record date or date from which interest shall accrue) are to be determined. Securities may differ between Series in respect of any matters, provided that all Series of Securities shall be equally and ratably entitled to the benefits of the Indenture.

Section 2.02. Establishment of Terms of Series of Securities. At or prior to the issuance of any Securities within a Series, the following shall be established (as to the Series generally, in the case of Subsection 2.02(a) and either as to such Securities within the Series or as to the Series generally in the case of Subsections 2.02(b) through 2.02(x)) by a Board Resolution, a supplemental indenture or an Officers’ Certificate pursuant to authority granted under a Board Resolution:

(a) the title and designation of the Securities of the Series, which shall distinguish the Securities of the Series from the Securities of all other Series, and which may be part of a Series of Securities previously issued;

(b) any limit upon the aggregate principal amount of the Securities of the 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 the Series pursuant to Section 2.07, 2.08, 2.11, 3.06 or 9.06);

(c) if other than Dollars, the Foreign Currency or Foreign Currencies in which the Securities of the Series are denominated;

(d) the date or dates on which the principal of the Securities of the Series is payable or the method of determination thereof;

(e) the rate or rates (which may be fixed or variable) at which the Securities of the Series shall bear interest, if any, the date or dates from which such interest shall accrue, on which such interest shall be payable, the terms and conditions of any deferral of interest and the additional interest, if any, thereon, the right, if any, of the Company to extend the interest payment periods and the duration of the extensions and (in the case of Registered Securities) the date or dates on which a record shall be taken for the determination of Holders to whom interest is payable and/or the method by which such rate or rates or date or dates shall be determined;

(f) the place or places where and the manner in which, the principal of and any interest on Securities of the Series shall be payable;

(g) the right, if any, of the Company to redeem Securities, in whole or in part, at its option and the period or periods within which, or the date or dates on which, the price or prices at which and any terms and conditions upon which Securities of the Series may be so redeemed, pursuant to any sinking fund or otherwise;

(h) the obligation, if any, of the Company to redeem, purchase or repay Securities of the Series pursuant to any mandatory redemption, sinking fund or analogous provisions or at the option of a Holder thereof and the price or prices at which and the period or periods within which or the date or dates on which, and any terms and conditions upon which Securities of the Series shall be redeemed, purchased or repaid, in whole or in part, pursuant to such obligation;

(i) if the Securities of such Series are Subordinated Securities, the terms pursuant to which the Securities of such Series will be made subordinate in right of payment to Senior Debt and the definition of such Senior Debt with respect to such Series (in the absence of an express statement to the effect that the Securities of such Series are subordinate in right of payment to all such Senior Debt, the Securities of such Series shall not be subordinate to Senior Debt and shall not constitute Subordinated Securities); and, in the event that the Securities of such Series are Subordinated Securities, such Board Resolution, Officer's Certificate or supplemental indenture, as the case may be, establishing the terms of such Series shall expressly state which articles, sections or other provisions thereof constitute the "Subordination Provisions" with respect to the Securities of such Series;

(j) if other than denominations of \$1,000 and any integral multiple thereof in the case of Registered Securities, or \$1,000 and \$5,000 in the case of Bearer Securities, the denominations in which Securities of the Series shall be issuable;

(k) the percentage of the principal amount at which the Securities will be issued, and, 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 and the terms and conditions of any acceleration;

(l) if other than the coin, currency or currencies in which the Securities of the Series are denominated, the coin, currency or currencies in which payment of the principal or interest on the Securities of such Series shall be payable, including composite currencies or currency units;

(m) if the principal or interest on the Securities of the Series are to be payable, at the election of the Company or a Holder thereof, in a coin or currency other than that in which the Securities are denominated, the period or periods within which, and the terms and conditions upon which, such election may be made;

(n) if the amount of payments of principal or interest on the Securities of the Series may be determined with reference to an index or formula based on a coin, currency, composite currency or currency unit other than that in which the Securities of the Series are denominated, the manner in which such amounts shall be determined;

(o) whether the Securities of the Series will be issuable as Registered Securities (and if so, whether such Securities will be issuable as Registered Global Securities) or Bearer Securities, with or without interest coupons appertaining thereto (and if so whether such Securities will be issuable as Bearer Global Securities), or any combination of the foregoing, any restrictions applicable to the offer, sale or delivery of Bearer Securities or the payment of interest thereon and the terms upon which Bearer Securities of any Series may be exchanged for Registered Securities of such Series and vice versa;

(p) whether and under what circumstances the Company will pay additional amounts on the Securities of the Series held by a person who is not a U.S. person in respect of any tax, assessment or governmental charge withheld or deducted and, if so, whether the Company will have the option to redeem the Securities of the Series rather than pay such additional amounts;

(q) if the Securities of the Series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such Series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, the form and terms of such certificates, documents or conditions;

(r) any trustees, depositories, authenticating or paying agents, transfer agents or registrars of any other agents with respect to the Securities of such Series;

(s) any deletion from, modification of or addition to the Events of Default or covenants with respect to the Securities of such Series, including, if applicable, covenants affording Holders of debt protection with respect to the Company's operations, financial conditions and transactions involving the Company;

(t) if the Securities of the Series are to be convertible into or exchangeable for any other security or property of the Company, including, without limitation, securities of another Person held by the Company or its Affiliates and, if so, the terms thereof, including conversion or exchange prices or rate and adjustments thereto;

(u) the price or prices at which the Securities will be issued;

(v) any provisions for remarketing;

(w) the terms applicable to any Securities issued at a discount from their stated principal amount; and

(x) any other terms of the Series.

All Securities of any one Series need not be issued at the same time and may be issued from time to time, consistent with the terms of this Indenture, if so provided by or pursuant to the Board Resolution, supplemental indenture or Officers' Certificate referred to above, and the authorized principal amount of any Series may not be increased to provide for issuances of additional Securities of such Series, unless otherwise provided in such Board Resolution, supplemental indenture or Officers' Certificate.

Section 2.03. Execution and Authentication. One or more Officers shall sign the Securities for the Company by manual or facsimile signature.

If an Officer whose signature is on a Security no longer holds that office at the time the Security is authenticated, the Security shall be valid nevertheless so long as such individual was an Officer at the time of execution of the Security.

A Security shall not be valid until authenticated by the manual signature of the Trustee or an authenticating agent. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture.

The Trustee shall at any time, and from time to time, authenticate Securities for original issue in the principal amount provided in the Board Resolution, supplemental indenture hereto or Officers' Certificate, upon receipt by the Trustee of a Company Order. Each Security shall be dated the date of its authentication unless otherwise provided by a Board Resolution, a supplemental indenture hereto or an Officers' Certificate.

The aggregate principal amount of Securities of any Series outstanding at any time may not exceed any limit upon the maximum principal amount for such Series set forth in the Board Resolution, supplemental indenture hereto or Officers' Certificate delivered pursuant to Section 2.02, except as provided in Section 2.08.

Prior to the issuance of Securities of any Series, the Trustee shall have received and (subject to Section 7.02) shall be fully protected in relying on: (a) the Board Resolution, supplemental indenture hereto or Officers' Certificate establishing the form of the Securities of that Series or of Securities within that Series and the terms of the Securities of that Series or of Securities within that Series, (b) an Officers' Certificate complying with Section 11.04, and (c) an Opinion of Counsel complying with Section 11.04.

The Trustee shall have the right to decline to authenticate and deliver any Securities of such Series: (a) if the Trustee, being advised by counsel, determines that such action may not lawfully be taken; or (b) if the Trustee in good faith shall determine that such action would expose the Trustee to personal liability to Holders of any then outstanding Series of Securities.

The Trustee may appoint an authenticating agent reasonably acceptable to the Company to authenticate the Securities. Any such appointment shall be evidenced by an instrument signed by a Trust Officer, a copy of which shall be furnished to the Company. Unless limited by the terms of such appointment, an authenticating agent may authenticate Securities whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate.

Section 2.04. Registrar and Paying Agent. The Company shall maintain, with respect to each Series of Securities, at the place or places specified with respect to such Series pursuant to Section 2.02, an office or agency where Securities of such Series may be presented or surrendered for payment ("Paying Agent"), where Securities of such Series may be surrendered for registration of transfer or exchange ("Registrar") and where notices and demands to or upon the Company in respect of the Securities of such Series and this Indenture may be served ("Service Agent"). The Registrar shall keep a register with respect to each Series of Registered Securities (the "Register") and to their transfer and exchange. The Company will give prompt written notice to the Trustee of the name and address, and any change in the name or address, of each Registrar, Paying Agent or Service Agent. If at any time the Company shall fail to maintain any such required Registrar, Paying Agent or Service Agent or shall fail to furnish the Trustee with the name and address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands; provided that the Corporate Trust Office shall not be an office or agency of the Company for the purpose of effecting service of legal process on the Company.

The Company may also from time to time designate one or more co-registrars, additional paying agents or additional service agents and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligations to maintain a Registrar, Paying Agent and Service Agent in each place so specified pursuant to Section 2.02 for Securities of any Series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the name or address of any such co-registrar, additional paying agent or additional service agent. The term "Registrar" includes any co-registrar; the term "Paying Agent" includes any additional paying agent; and the term "Service Agent" includes any additional service agent.

The Company hereby appoints the Trustee as the initial Registrar, Paying Agent and Service Agent for each Series unless another Registrar, Paying Agent or Service Agent, as the case may be, is appointed prior to the time Securities of that Series are first issued. The Company or any of its domestically organized Subsidiaries may act as Paying Agent, Registrar or Service Agent. So long as the Trustee is the Service Agent, no service of legal process on the Company may be made on the Service Agent.

The rights, privileges, protections, immunities and benefits given to the Trustee under this Indenture 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 acting hereunder.

The Company shall enter into an appropriate agency agreement with any Registrar, Paying Agent or Service Agent not a party to this Indenture, which shall incorporate the terms of the TIA. The agreement shall implement the provisions of this Indenture that relate to such agent. The Company shall notify the Trustee of the name and address of any such agent.

The Company may remove any Registrar, Paying Agent or Service Agent for any Series of Securities upon written notice to such Registrar, Paying Agent or Service Agent and to the Trustee; provided, however, that no such removal shall become effective until (1) acceptance of an appointment by a successor as evidenced by an appropriate agreement entered into by the Company and such successor Registrar, Paying Agent or Service Agent, as the case may be, and delivered to the Trustee or (2) notification to the Trustee that the Trustee shall serve as Registrar, Paying Agent or Service Agent, as the case may be, until the appointment of a successor in accordance with clause (1) above. The Registrar, Paying Agent or Service Agent may resign at any time upon written notice; provided, however, that the Trustee may resign as Paying Agent, Registrar or Service Agent only if the Trustee also resigns as Trustee in accordance with Section 7.08. Upon any Event of Default under Section 6.01(e) or Section 6.01(f), the Trustee shall automatically be the Paying Agent.

Section 2.05. Paying Agent to Hold Money in Trust. Prior to each due date of the principal and interest on any Series of Securities, the Company shall deposit with the Paying Agent (or if the Company or a Subsidiary is acting as Paying Agent, segregate and hold in trust for the benefit of the Persons entitled thereto) a sum sufficient to pay such principal and interest when so becoming due. The Company shall require each Paying Agent (other than the Trustee) to agree in writing that the Paying Agent will hold in trust, for the benefit of Securityholders of any Series of Securities, or the Trustee, all money held by the Paying Agent for the payment of principal of or interest on the Series of Securities, and shall notify the Trustee of any default by the Company in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon payment over to the Trustee, the Paying Agent (if other than the Company or a Subsidiary) shall have no further liability for the money. If the Company or a Subsidiary acts as Paying Agent, it shall segregate and hold in a separate trust fund for the benefit of Securityholders of any Series of Securities all money held by it as Paying Agent.

Section 2.06. Securityholder Lists. 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 Securityholders of each Series of Securities and shall otherwise comply with TIA § 312(a). If the Trustee is not the Registrar, the Company shall furnish, or cause the Registrar to furnish, to the Trustee at least five Business Days before each interest payment date, but in any event not less frequently than semi-annually, 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 Securityholders of each Series of Securities.

Section 2.07. Exchange and Registration of Transfer. The Company shall cause to be kept at the Corporate Trust Office the Register in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities of a Series and of transfers of Securities of such Series. The Register shall be in written form or in any form capable of being converted into written form within a reasonably prompt period of time.

Upon surrender for registration of transfer of any Security of a Series to the Registrar or any co-registrar, and satisfaction of the requirements for such transfer set forth in this Section 2.07, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Security of the same Series of any authorized denominations and of a like aggregate principal amount and bearing such restrictive legends as may be required by this Indenture.

Securities of a Series may be exchanged for other Securities of the same Series of any authorized denominations and of a like aggregate principal amount, upon surrender of the Securities to be exchanged at any such office or agency maintained by the Company pursuant to Section 4.06.

Whenever any Securities of a Series are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities of the same Series that the Holder making the exchange is entitled to receive bearing registration numbers not contemporaneously outstanding.

All Securities of a Series issued upon any registration of transfer or exchange of Securities of the same Series shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities of the same Series surrendered upon such registration of transfer or exchange.

All Securities of a Series presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Registrar) be duly endorsed, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Company, and the Securities of such Series shall be duly executed by the Holder thereof or his attorney duly authorized in writing.

No service charge shall be made to any holder for any registration of, transfer or exchange of Securities, but the Company or the Trustee may require payment by the holder of a sum sufficient to cover any tax, assessment or other governmental charge that may be imposed in connection with any registration of transfer or exchange of such Securities (other than any such transfer tax or similar governmental charge payable upon exchanges pursuant to Sections 2.11, 3.06 or 9.06).

Neither the Company nor the Trustee nor any Registrar shall be required to exchange, issue or register a transfer of (a) Securities of any Series for a period of fifteen calendar days next preceding date of mailing of a notice of redemption of Securities of that Series selected for redemption, or (b) Securities of any Series or portions thereof called for redemption, except for the unredeemed portion of any Securities of that Series being redeemed in part.

Section 2.08. Mutilated, Destroyed, Lost and Stolen Securities. If a mutilated Security is surrendered to the Registrar or if the Securityholder of a Security claims that the Security has been lost, destroyed or wrongfully taken, the Company shall issue and the Trustee shall authenticate and deliver a replacement Security of the same Series if the requirements of Section 8-405 of the Uniform Commercial Code are met, such that the Securityholder (a) satisfies the Company or the Trustee within a reasonable time after he has notice of such loss, destruction or wrongful taking and the Registrar does not register a transfer prior to receiving such notification, (b) makes such request to the Company or the Trustee prior to the Security being acquired by a protected purchaser as defined in Section 8-303 of the Uniform Commercial Code (a "protected purchaser") and (c) satisfies any other reasonable requirements of the Company or the Trustee. If required by the Trustee or the Company, such Securityholder shall furnish an indemnity bond sufficient in the judgment of the Trustee to protect the Trustee and any Agent and in the judgment of the Company to protect the Company, the Trustee, the Paying Agent and the Registrar from any loss that any of them may suffer if a Security is replaced. The Company and the Trustee may charge the Securityholder for their expenses in replacing a Security. In case any Security which has matured or is about to mature or has been called for redemption, shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of (without surrender thereof except in the case of a mutilated Security), as the case may be, if the applicant for such payment or conversion shall furnish to the Company, to the Trustee and, if applicable, to such authenticating agent such security or indemnity as may be required by them to save each of them harmless for any loss, liability, cost or expense caused by or in connection with such substitution, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company, the Trustee and, if applicable, any Paying Agent evidence to their satisfaction of the destruction, loss or theft of such Securities and of the ownership thereof.

Every replacement Security of any Series issued pursuant to this Section is an additional obligation of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities of the same Series replaced.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Section 2.09. **Outstanding Securities.** The Securities outstanding at any time are all the Securities authenticated by the Trustee except for those cancelled by it, those delivered to it for cancellation, those reductions in the interest on a Registered Global Security effected by the Trustee in accordance with the provisions hereof and those described in this Section as not outstanding. A Security does not cease to be outstanding because the Company or an Affiliate holds the Security.

If a Security is replaced pursuant to Section 2.08, it ceases to be outstanding unless the Trustee and the Company receive proof satisfactory to them that the replaced Security is held by a protected purchaser.

If the Paying Agent (other than the Company, a Subsidiary or an Affiliate of any thereof) holds on the Maturity of Securities of a Series money sufficient to pay such Securities (or portions thereof) payable on that date, and the Paying Agent is not prohibited from paying such money to the Securityholders of such Series on that date pursuant to the terms of the Indenture, then on and after that date such Securities of the Series (or portions thereof) cease to be outstanding and interest on them ceases to accrue.

In determining whether the Holders of the requisite principal amount of outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder, the principal amount of a Discount Security that shall be deemed to be outstanding for such purposes shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon a declaration of acceleration of the Maturity thereof pursuant to Section 6.02.

Section 2.10. **Treasury Securities.** In determining whether the Holders of the required principal amount of Securities of a Series have concurred in any direction, waiver or consent, Securities of a Series owned by the Company, any other obligor upon the Securities or an Affiliate of the Company or such other obligor shall be disregarded and deemed not to be outstanding, except that for the purposes of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent only Securities of a Series that the Trustee knows are so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or any other obligor on the Securities. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice. Upon written request of the Trustee, the Company shall furnish to the Trustee promptly an Officers' Certificate listing and identifying all Securities, if any, known by the Company to be owned or held by or for the account of any of the above-described persons; and, subject to Sections 7.01 and 7.02, the Trustee shall be entitled to accept such Officers' Certificate as conclusive evidence of the facts therein set forth and of the fact that all Securities not listed therein are outstanding for the purpose of any such determination.

Section 2.11. **Temporary Securities.** Pending the preparation of Securities in certificated form, the Company may execute and the Trustee or an authenticating agent appointed by the Trustee shall, upon a Company Order, authenticate and deliver temporary Securities (printed, lithographed, typewritten, photocopied or otherwise produced). Temporary Securities shall be issuable in any authorized denomination, and substantially in the form of the Securities in certificated form, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every such temporary Security shall be executed by the Company and authenticated by the Trustee or such authenticating agent upon the same conditions and in substantially the same manner, and with the same effect, as the Securities in certificated form. Without unreasonable delay, the Company will execute and deliver to the Trustee or such authenticating agent Securities of the same Series in certificated form and thereupon any or all temporary Securities may be surrendered in exchange therefor, at each office or agency maintained by the Company pursuant to Section 4.07 and the Trustee or such

authenticating agent shall authenticate and make available for delivery in exchange for such temporary Securities an equal aggregate principal amount of Securities of the same Series in certificated form. Such exchange shall be made by the Company at its own expense and without any charge therefor. Until so exchanged, the temporary Securities shall in all respects be entitled to the same benefits and subject to the same limitations under this Indenture as Securities of the same Series in certificated form authenticated and delivered hereunder.

Section 2.12. Cancellation. The Company at any time may deliver Securities to the Trustee for cancellation. The Registrar and the Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange or payment. The Trustee and no one else shall cancel all Securities surrendered for registration of transfer, exchange, payment, replacement or cancellation and dispose of such cancelled Securities in accordance with its customary procedure. The Company may not issue new Securities to replace Securities that it has paid or delivered to the Trustee for cancellation. The Trustee shall not authenticate Securities in place of cancelled Securities other than pursuant to the terms of this Indenture.

Section 2.13. Defaulted Interest. If the Company defaults in a payment of interest on a Series of Securities, it shall pay the defaulted interest, plus, to the extent permitted by law, any interest payable on the defaulted interest, to the Persons who are Securityholders of the Series on a subsequent special record date. The Company shall fix or cause to be fixed any such special record date and payment date to the reasonable satisfaction of the Trustee and shall promptly mail or cause to be mailed or deliver by electronic transmission to each Securityholder of the Series a notice that states the special record date, the payment date and the amount of defaulted interest to be paid. The Company may pay defaulted interest in any lawful manner.

Section 2.14. Registered Global Securities.

(a) Terms of Securities. A Board Resolution, a supplemental indenture hereto or an Officers' Certificate shall establish whether the Securities of a Series shall be issued in whole or in part in the form of one or more Registered Global Securities and the Depositary for such Registered Global Security or Securities.

(b) Transfer and Exchange. Notwithstanding any provisions to the contrary contained in Section 2.07 of the Indenture and in addition thereto, any Registered Global Security shall be exchangeable pursuant to Section 2.07 of the Indenture for Securities registered in the names of Holders other than the Depositary for such Security or its nominee only if (i) such Depositary notifies the Company that it is unwilling or unable to continue as Depositary for such Registered Global Security or if at any time such Depositary ceases to be a clearing agency registered under the Exchange Act, and, in either case, the Company fails to appoint a successor Depositary within 90 days of such event or (ii) the Company executes and delivers to the Trustee an Officers' Certificate to the effect that such Registered Global Security shall be so exchangeable. Any Registered Global Security that is exchangeable pursuant to the preceding sentence shall be exchangeable for Securities registered in such names as the Depositary shall direct in writing in an aggregate principal amount equal to the principal amount of the Registered Global Security with like tenor and terms.

Except as provided in this Section 2.14(b), a Registered Global Security may not be transferred except as a whole by the Depositary with respect to such Registered Global Security to a nominee of such Depositary, by a nominee of such Depositary to such Depositary or another nominee of such Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such a successor Depositary.

(c) Legend. Any Registered Global Security issued hereunder shall bear a legend in substantially the following form:

"This Security is a Registered Global Security within the meaning of the Indenture hereinafter referred to and is registered in the name of the Depositary or a nominee of the Depositary. This

Security is exchangeable for Securities registered in the name of a Person other than the Depository or its nominee only in the limited circumstances described in the Indenture, and may not be transferred except as a whole by the Depository to a nominee of the Depository, by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or any such nominee to a successor Depository or a nominee of such a successor Depository.”

(d) Acts of Holders. The Depository, as a Holder, may appoint agents and otherwise authorize participants to give or take any request, demand, authorization, direction, notice, consent, waiver or other action which a Holder is entitled to give or take under the Indenture.

(e) Payments. Notwithstanding the other provisions of this Indenture, unless otherwise specified as contemplated by Section 2.02, payment of the principal of and interest, if any, on any Registered Global Security shall be made to the Holder thereof.

(f) Consents, Declaration and Directions. Except as provided in Section 2.14(d), the Company, the Trustee and any Agent shall treat a Person as the Holder of such principal amount of outstanding Securities of such Series represented by a Registered Global Security as shall be specified in a written statement of the Depository with respect to such Registered Global Security, for purposes of obtaining any consents, declarations, waivers or directions required to be given by the Holders pursuant to this Indenture.

Section 2.15. Computation of Interest. Except as otherwise specified pursuant to Section 2.02 for Securities of any Series, interest on the Securities of each Series shall be computed on the basis of a 360 -day year of twelve 30 -day months.

Section 2.16. CUSIP and ISIN Numbers. The Company in issuing the Securities may use “CUSIP” and “ISIN” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” and “ISIN” numbers in notices of redemption as a convenience to Holders; provided that 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 a redemption and that reliance may be placed only on the other elements of identification 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 of any changes to the CUSIP and ISIN numbers.

ARTICLE 3 REDEMPTION

Section 3.01. Notice to Trustee. The Company may, with respect to any Series of Securities, reserve the right to redeem and pay the Series of Securities or may covenant to redeem and pay the Series of Securities or any part thereof prior to the Stated Maturity thereof at such time and on such terms as provided for in such Securities. If a Series of Securities is redeemable and the Company wants or is obligated to redeem prior to the Stated Maturity thereof all or part of the Series of Securities pursuant to the terms of such Securities, it shall notify the Trustee in writing of the redemption date and the principal amount of Series of Securities to be redeemed. The Company shall give the notice at least 35 calendar days before the redemption date (or such shorter notice as may be acceptable to the Trustee).

Section 3.02. Selection of Securities to be Redeemed. Unless otherwise indicated for a particular Series by a Board Resolution, a supplemental indenture or an Officers' Certificate, if less than all the Securities of a Series are to be redeemed, the Trustee shall select the Securities of the Series to be redeemed in any manner that the Trustee deems fair and appropriate. The Trustee shall make the selection from Securities of the Series outstanding not previously called for redemption. The Trustee may select for redemption portions of the principal of Securities of the Series that have denominations larger than \$1,000. Securities of the Series and portions of them it selects shall be in amounts of \$1,000 or whole multiples of \$1,000 or, with respect to Securities of any Series issuable in other denominations

pursuant to Section 2.02(j), the minimum principal denomination for each Series and integral multiples thereof. Provisions of this Indenture that apply to Securities of a Series called for redemption also apply to portions of Securities of that Series called for redemption.

Section 3.03. Notice of Redemption. Unless otherwise indicated for a particular Series by Board Resolution, a supplemental indenture hereto or an Officers' Certificate, at least 10 days but not more than 60 days before a redemption date, the Company shall provide a notice of redemption by electronic transmission or first-class mail to each Holder whose Securities are to be redeemed and if any Bearer Securities are outstanding, publish on one occasion a notice in an Authorized Newspaper.

The notice shall identify the Securities of the Series to be redeemed and shall state:

- (a) the redemption date;
- (b) the redemption price, or if not then ascertainable, the manner of calculation thereof;
- (c) the name and address of the Paying Agent;
- (d) if less than all Securities of any Series are to be redeemed, the identification of the particular Securities to be redeemed and the portion of the principal amount of any Security to be redeemed in part;
- (e) that Securities of the Series called for redemption must be surrendered to the Paying Agent to collect the redemption price;
- (f) that interest on Securities of the Series called for redemption ceases to accrue on and after the redemption date;
- (g) the nature of any conditions precedent to the Company's obligation to redeem the Securities on the redemption date; and
- (h) any other information as may be required by the terms of the particular Series or the Securities of a Series being redeemed.

At the Company's written request, the Trustee shall give the notice of redemption in the Company's name and at the Company's expense and provided that the form and content of such notice shall be prepared by the Company.

Section 3.04. Effect of Notice of Redemption. Once notice of redemption is transmitted, mailed or published as provided in Section 3.03, Securities of a Series called for redemption become due and payable on the redemption date and at the redemption price. Upon surrender to the Paying Agent, such Securities shall be paid at the redemption price plus accrued interest to, but excluding, the redemption date.

Section 3.05. Deposit of Redemption Price. On or before the redemption date, the Company shall deposit with the Paying Agent money sufficient to pay the redemption price of and accrued interest, if any, on all Securities to be redeemed on that date.

Section 3.06. Securities Redeemed in Part. Upon surrender of a Security that is redeemed in part, the Trustee shall authenticate for the Holder a new Security of the same Series and the same maturity equal in principal amount to the unredeemed portion of the Security surrendered.

ARTICLE 4
COVENANTS

Section 4.01. **Payment of Principal and Interest.** The Company shall duly and punctually pay the principal of and interest, if any, on the Securities of that Series in accordance with the terms of such Securities and this Indenture.

Section 4.02. **SEC Reports.** The Company shall furnish to the Trustee within 15 days after the filing by the Company with the SEC 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 SEC may by rules and regulations prescribe) which the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. The Company also shall comply with the other provisions of TIA § 314(a). The Company will be deemed to have furnished such reports referred to in this Section to the Trustee if the Company has filed such reports with the SEC via the EDGAR filing system (or any successor thereto) and such reports are publicly available.

Section 4.03. **Compliance Certificate.** The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company, a brief certificate from the principal executive officer, principal financial officer, principal accounting officer or vice president or treasurer as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture (which compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture) and, in the event of any Default, specifying each such Default and the nature and status thereof of which such Person may have knowledge. Such certificates need not comply with Section 11.05 of this Indenture.

Section 4.04. **Stay, Extension and Usury Laws.** The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture or the Securities; and the Company (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law has been enacted.

Section 4.05. **Corporate Existence.** Subject to Article 5, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and the rights (charter and statutory), licenses and franchises of the Company; provided, however, that the Company shall not be required to preserve any such right, license or franchise, if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company and its Subsidiaries taken as a whole and that the loss thereof is not adverse in any material respect to the Holders.

Section 4.06. **Maintenance of Office or Agency.** The Company will maintain an office or agency in the United States, where the Securities of a Series may be surrendered for registration of transfer or exchange or for presentation for payment and where notices and demands to or upon the Company in respect of the Securities of a Series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency not designated or appointed by the Trustee. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office.

The Company may also from time to time designate co-registrars and one or more offices or agencies where the Securities of a Series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations. The Company will give prompt written notice to the

Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Section 4.07. Money For Securities Payments to be Held in Trust. If the Company shall at any time act as its own Paying Agent with respect to the Securities of any Series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on any of such Securities, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and premium or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided. The Company shall promptly notify the Trustee of any failure by the Company (or any other obligor of such Securities) to make any payment of principal of or premium, if any, or interest, if any, on such Securities.

Whenever the Company shall have one or more Paying Agents for the Securities of any Series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on such Securities, deposit with such Paying Agents sums sufficient (without duplication) to pay the principal and premium or interest so becoming due, such sums 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 shall promptly notify the Trustee of any failure by it so to act.

The Company shall cause each Paying Agent for the Securities of any Series, other than the Company or the Trustee, to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent shall:

(i) hold all sums held by it for the payment of the principal of and premium, if any, or interest, if any, on such Securities in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;

(ii) give the Trustee notice of any failure by the Company (or any other obligor upon such Securities) to make any payment of principal of or premium, if any, or interest, if any, on such Securities; and

(iii) at any time during the continuance of any such failure, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent and furnish to the Trustee such information as it possesses regarding the names and addresses of the Persons entitled to such sums.

The Company may at any time pay, or by Company Order 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 trusts as those upon which such sums were held by the Company or such Paying Agent and, if so stated in a Company Order delivered to the Trustee, in accordance with the provisions of Article 8; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

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 and premium, if any, or interest, if any, on any Security and remaining unclaimed for two years after such principal and premium, if any, or interest, if any, has become due and payable shall be paid to the Company on request of the Company, or, if then held by the Company, shall be discharged from such trust; and, upon such payment or discharge, the Holder of such Security shall, as an unsecured general creditor and not as the Holder of an outstanding Security, look only to the Company for payment of the amount so due and payable and remaining unpaid, 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, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such payment to the Company, may at the expense of the Company cause to be published once a week for two successive weeks, in each case on any day of the week, in an Authorized Newspaper in each Place of Payment, notice that such money remains unclaimed

and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be paid to the Company.

Section 4.08. **Waiver of Certain Covenants.** Except as otherwise specified as contemplated by Section 2.02 for Securities of such Series, the Company may, with respect to the Securities of any Series, omit in any particular instance to comply with any term, provision or condition set forth in any covenant provided herein or pursuant to Section 2.02(s) or Section 9.01(c) for the benefit of the Holders of such Series if before the time for such compliance the Holders of at least 50% in principal amount of the outstanding Securities of such Series shall, by an Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, but no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of such term, provision or condition shall remain in full force and effect.

ARTICLE 5 SUCCESSORS

Section 5.01. **When Company May Merge, Etc.** The Company shall not consolidate with or merge into, or convey, transfer or lease all or substantially all of its properties and assets to, any Person (a "successor person"), and may not permit any Person to merge into, or convey, transfer or lease its properties and assets substantially as an entirety to, the Company, unless:

(a) either the Company shall be the continuing corporation or the successor person (if other than the Company) is a corporation, partnership, trust or other entity organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and expressly assumes the Company's obligations on the Securities and under this Indenture; and

(b) immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

The Company shall deliver to the Trustee prior to the consummation of the proposed transaction an Officers' Certificate to the foregoing effect and an Opinion of Counsel stating that the proposed transaction and such supplemental indenture comply with this Indenture.

Section 5.02. **Successor Corporation Substituted.** The successor person formed by such consolidation or into which the Company is merged or to which such transfer or lease is made shall succeed to and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor person had been named as the Company herein, and thereafter (except in the case of a lease to another Person) the predecessor corporation shall be relieved of all obligations and covenants under the Indenture and the Securities and, in the event of such conveyance or transfer, any such predecessor corporation may be dissolved and liquidated.

ARTICLE 6 DEFAULTS AND REMEDIES

Section 6.01. **Events of Default.**

"Event of Default," wherever used herein with respect to Securities of any Series, means any one of the following events, unless in the establishing Board Resolution, supplemental indenture or Officers' Certificate, it is provided that such Series shall not have the benefit of said Event of Default:

(a) a default in the payment of any interest on any Security of that Series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of such payment is deposited by the Company with the Trustee or with a Paying Agent prior to the expiration

of such period of 30 days); provided that, a valid extension of an interest payment period by the Company in accordance with the terms of such Securities shall not constitute a failure to pay interest; or

(b) a default in the payment of the principal of, or premium, if any, on, any Security of that Series when due at its Maturity; or

(c) a default in the deposit of any sinking fund payment, when and as due in respect of any Security of that Series; or

(d) a default, subject to the provisions in Section 4.08, in the performance or breach of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty that has been included in this Indenture solely for the benefit of Series of Securities other than that Series), which default continues uncured for a period of 90 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the outstanding Securities of that Series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(e) 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,

(iv) makes a general assignment for the benefit of its creditors, or

(v) generally is unable to pay its debts as the same become due; or

(f) a court of competent jurisdiction enters an order or decree 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 days; or

(g) any other Event of Default provided with respect to Securities of that Series, which is specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate, in accordance with Section 2.02(s).

The term "Bankruptcy Law" means title 11, U.S. Code or any similar Federal or State law for the relief of debtors. The term "Custodian" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

Section 6.02. Acceleration of Maturity; Rescission and Annulment. If an Event of Default described in Section 6.01(a), (b) or (c) occurs and is continuing, then, and in each and every such case, except for any series of Securities the principal of which 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 each such affected series then outstanding hereunder (each such series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such series are Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all Securities of such series, and the interest accrued

thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

Except as otherwise provided in the terms of any series of Senior Securities pursuant to Section 2.02, if an Event of Default described in Section 6.01(d) or (g) above with respect to all series of the Senior Securities then outstanding, occurs and is continuing, then, and in each and every such case, unless the principal of all of the Senior Securities shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of all of the Senior Securities then outstanding hereunder (treated as one class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Senior Securities of any series are Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all of the Senior Securities then outstanding, and the interest accrued thereon, if any, to be due and payable immediately, and upon such declaration, the same shall become immediately due and payable. If an Event of Default described in Section 6.01(e) or 6.01(f) above occurs and is continuing, then the principal amount of all the Senior Securities then outstanding, and the interest accrued thereon, if any, shall become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder.

Except as otherwise provided in the terms of any series of Subordinated Securities pursuant to Section 2.02, if an Event of Default described in Section 6.01(d) or (g) above with respect to all series of Subordinated Securities then outstanding, occurs and is continuing, then, and in each and every such case, unless the principal of all of the Subordinated Securities shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of all of the Subordinated Securities then outstanding hereunder (treated as one class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Subordinated Securities of any series are Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all of the Subordinated Securities then outstanding, and the interest accrued thereon, if any, to be due and payable immediately, and upon such declaration, the same shall become immediately due and payable.

If an Event of Default described in Section 6.01(d) or (g) occurs and is continuing, which Event of Default is with respect to less than all series of Senior Securities then outstanding, then, and in each and every such case, except for any series of Senior Securities the principal of which shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Senior Securities of each such affected series then outstanding hereunder (each such series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all Securities of such series, and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

If an Event of Default described in Section 6.01(d) or (g) occurs and is continuing, which Event of Default is with respect to less than all series of Subordinated Securities then outstanding, then, and in each and every such case, except for any series of Subordinated Securities the principal of which shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Subordinated Securities of each such affected series then outstanding hereunder (each such series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such series are Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all Securities of such series, and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

If an Event of Default specified in Section 6.01(e) or (f) shall occur, the principal amount (or specified amount) of and accrued and unpaid interest, if any, on all outstanding Securities shall ipso facto become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder.

At any time after such a declaration of acceleration with respect to any Series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the outstanding Securities of that Series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if:

- (a) the Company has paid or deposited with the Trustee a sum sufficient to pay
 - (i) all overdue interest, if any, on all Securities of that Series,
 - (ii) the principal of any Securities of that Series which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates prescribed therefor in such Securities,
 - (iii) to the extent that payment of such interest is lawful, interest upon any overdue principal and overdue interest at the rate or rates prescribed therefor in such Securities,
 - (iv) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and
 - (v) all Events of Default with respect to Securities of that Series, other than the non-payment of the principal of Securities of that Series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 6.13.

No such rescission shall affect any subsequent Default or impair any right consequent thereon.

Section 6.03. Collection of Indebtedness and Suits for Enforcement by Trustee. The Company covenants that if

- (a) default is made in the payment of any interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or
- (b) default is made in the payment of principal of any Security when due at the Maturity thereof, or
- (c) default is made in the deposit of any sinking fund payment when and as due by the terms of a Security, then, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal or any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Securities and collect the moneys adjudged or deemed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to any Securities of any Series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such Series by such appropriate judicial proceedings as the Trustee shall deem most

effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 6.04. Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(a) to file and prove a claim for the whole amount of principal and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same, and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.07

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any

Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 6.05. Trustee May Enforce Claims without Possession of Securities. All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such 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 the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

Section 6.06. Application of Money Collected. Any money or property collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money or property on account of principal or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

First: To the payment of all amounts due the Trustee under Section 7.07; and

Second: To the payment of the amounts then due and unpaid for principal of and interest on the Securities 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 interest, respectively; and

Third: To the Company.

Section 6.07. **Limitation on Suits.** No Holder of any Security of any Series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(a) such Holder has previously given written notice to the Trustee of an Event of Default and the continuance thereof with respect to the Securities of that Series;

(b) the Holders of not less than 25% in principal amount of the outstanding Securities of that Series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(c) such Holder or Holders have offered to the Trustee reasonable security or indemnity satisfactory to the Trustee against the expenses and liabilities to be incurred in compliance with such request;

(d) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(e) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the outstanding Securities of that Series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

Section 6.08. **Unconditional Right of Holders to Receive Principal and Interest.** Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and interest, if any, on such Security on the Stated Maturity or Stated Maturities expressed in such Security (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 6.09. **Restoration of Rights and Remedies.** If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 6.10. **Rights and Remedies Cumulative.** Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in Section 2.08, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 6.11. **Delay or Omission Not Waiver.** No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair

any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 6.12. Control by Holders. The Holders of a majority in principal amount of the outstanding Securities of any Series 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 the Securities of such Series, provided that

(a) such direction shall not be in conflict with any rule of law or with this Indenture,

(b) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction, and

(c) subject to the provisions of Section 6.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Trust Officer of the Trustee, determine that the proceeding so directed would involve the Trustee in personal liability.

Section 6.13. Waiver of Past Defaults. The Holders of not less than a majority in principal amount of the outstanding Securities of any Series may on behalf of the Holders of all the Securities of such Series waive any past Default hereunder with respect to such Series and its consequences, except a Default in the payment of the principal of or interest on any Security of such Series (provided, however, that the Holders of a majority in principal amount of the outstanding Securities of any Series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration). Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.14. Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his 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, suffered 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 Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the outstanding Securities of any Series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or interest on any Security on or after the Stated Maturity or Stated Maturities expressed in such Security (or, in the case of redemption, on the redemption date).

ARTICLE 7 TRUSTEE

Section 7.01. Duties of Trustee. (a) If an Event of Default has occurred and is continuing, the Trustee shall exercise 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 such Person's own affairs.

(a) Except during the continuance of an Event of Default:

(i) the Trustee need perform only those duties that are specifically set forth in this Indenture and no other implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may 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; however, the Trustee shall examine such certificates and opinions to determine whether or not they conform to the requirements of this Indenture.

(b) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) this paragraph does not limit the effect of paragraph (a) of this Section;

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

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take with respect to Securities of any Series in good faith in accordance with the direction of the Holders of a majority in principal amount of the outstanding Securities of such Series.

(c) Every provision of this Indenture that in any way relates to the Trustee is subject to paragraph (a), (b), (c) and (g) of this Section.

(d) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree in writing with the Company.

(e) Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

(f) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk is not reasonably assured to it.

(g) 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 and to the provisions of the TIA.

Section 7.02. Rights of Trustee. (a) The Trustee may rely on any document believed by it to be genuine and to have been signed or presented by the proper person. The Trustee need not investigate any fact or matter stated in the document.

(a) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on the Officers' Certificate or Opinion of Counsel.

(b) The Trustee may act through agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.

(c) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers.

(d) The Trustee may consult with counsel, and the advice or opinion of counsel with respect to legal matters relating to this Indenture and the Securities shall be full and complete authorization and protection from liability in respect to any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel.

(e) 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, debenture, note or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit.

(f) 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 satisfactory to the Trustee against the costs, expenses, losses and liabilities which may be incurred therein or thereby.

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

(h) The Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

(i) The permissive rights of the Trustee enumerated herein shall not be construed as duties.

(i) Delivery of reports, information and documents to the Trustee under Section 4.02 is for informational purposes only and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

(ii) Notwithstanding anything in this Indenture to the contrary, neither the Trustee nor any Agent shall be responsible or liable to any person for any indirect, special, punitive or consequential damage or loss (including but not limited to lost profits) whatsoever, even if the Trustee has been informed of the likelihood thereof and regardless of the form of action.

Section 7.03. Individual Rights of Trustee. The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may otherwise deal with the Company or an Affiliate with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. The Trustee is also subject to Sections 7.10 and 7.11.

Section 7.04. Trustee's Disclaimer. The Trustee shall not be responsible and makes no representation as to the validity or adequacy of this Indenture or the Securities, it shall not be accountable for the Company's use of the proceeds from the Securities, and it shall not be responsible for any statement in the Securities or in any document issued in connection with the sale of the Securities or in the Securities other than its certificate of authentication.

Section 7.05. Notice of Defaults. If a Default or Event of Default occurs and is continuing with respect to the Securities of any Series and if it is known to a Trust Officer of the Trustee, the Trustee shall send to each Securityholder of the Securities of that Series and, if any Bearer Securities are outstanding, publish on one occasion in an Authorized Newspaper, notice of a Default or Event of Default within 90

days after it occurs or 30 days after it is known to a Trust Officer or written notice of it is received by the Trustee. Except in the case of a Default or Event of Default in payment of principal, premium, if any, of or interest on any Security of any Series or in payment of any redemption obligation, the Trustee may withhold the notice if and so long as its corporate trust committee or a committee of its Trust Officers in good faith determines that withholding the notice is in the interests of Securityholders of that Series.

Section 7.06. Reports by Trustee to Holders. As promptly as practicable after each May 15 beginning with [], and in any event prior to July 15 in each year, the Trustee shall transmit by mail or by electronic transmission to all Securityholders, as their names and addresses appear on the register kept by the Registrar and, if any Bearer Securities are outstanding, publish in an Authorized Newspaper, a brief report dated as of May 15, each year if and to the extent required by TIA § 313(a). The Trustee shall also comply with TIA § 313(b) and TIA § 313(c).

A copy of each report at the time of its sending to Securityholders of any Series shall be filed with the SEC and each stock exchange (if any) on which the Securities of that Series are listed. The Company shall promptly notify the Trustee when Securities of any Series are listed on any stock exchange and of any delisting thereof.

Section 7.07. Compensation and Indemnity. The Company shall pay to the Trustee from time to time such compensation as the Company and the Trustee shall from time to time agree in writing. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Company shall reimburse the Trustee upon request for all reasonable out-of-pocket expenses incurred or made by it, including costs of collection, in addition to the compensation for its services. Such expenses shall include the reasonable compensation and expenses, disbursements and advances of the Trustee's agents, counsel, accountants and experts. The Company shall indemnify the Trustee, its officers, directors, employees and agents, and hold each of them harmless, against any and all loss, liability or expense (including reasonable attorneys' fees) incurred by or in connection with the offer and sale of the Securities or the administration of this trust and the performance of its duties hereunder. The Trustee shall notify the Company of any claim for which it may seek indemnity promptly upon obtaining actual knowledge thereof; provided, however, that any failure so to notify the Company shall not relieve the Company of its indemnity obligations hereunder. The Company shall defend the claim and the indemnified party shall provide reasonable cooperation at the Company's expense in the defense. Such indemnified parties may have separate counsel and the Company shall pay the fees and expenses of such counsel; provided, however, that the Company shall not be required to pay such fees and expenses if it assumes such indemnified parties' defense and, in such indemnified parties' reasonable judgment, there is no conflict of interest between the Company and such parties in connection with such defense. The Company need not reimburse any expense or indemnify against any loss, liability or expense incurred by an indemnified party through such party's own willful misconduct and gross negligence.

To secure the Company's payment obligations in this Section, the Trustee shall have a lien prior to the Securities of any Series on all money or property held or collected by the Trustee other than money or property held in trust to pay principal of and interest and any liquidated damages on particular Securities of that Series.

The Company's payment obligations pursuant to this Section shall survive the satisfaction or discharge of this Indenture, any rejection or termination of this Indenture under any bankruptcy law or the resignation or removal of the Trustee.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.01(f) or (g) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

Section 7.08. Replacement of Trustee. The Trustee may resign with respect to the Securities of one or more Series at any time by so notifying the Company. The Holders of a majority in principal amount of the Securities of any Series may remove the Trustee with respect to that Series by so notifying

the Trustee and may appoint a successor Trustee. The Company shall remove the Trustee with respect to Securities of one or more Series if:

- (a) the Trustee fails to comply with Section 7.10;
- (b) the Trustee is adjudged bankrupt or insolvent;
- (c) a receiver or other public officer takes charge of the Trustee or its property; or
- (d) the Trustee otherwise becomes incapable of acting.

If the Trustee resigns, is removed by the Company or by the Holders of a majority in principal amount of the Securities of any Series and such Securityholders do not reasonably promptly appoint a successor Trustee, or if a vacancy exists in the office of Trustee for any reason (the Trustee in such event being referred to herein as the retiring Trustee), the Company shall promptly appoint a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Thereupon the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee with respect to each Series of Securities for which it is acting as Trustee under this Indenture. The successor Trustee shall send a notice of its succession to each Securityholder of each such Series and, if any Bearer Securities are outstanding, publish such notice on one occasion in an Authorized Newspaper. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee, subject to the lien provided for in Section 7.07.

If a successor Trustee with respect to the Securities of any one or more Series does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee or the Holders of 10% in principal amount of the Securities of the applicable Series may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee with respect to the Securities of any one or more Series fails to comply with Section 7.10, any Securityholder of the applicable Series may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

Notwithstanding the replacement of the Trustee pursuant to this Section, the Company's obligations under Section 7.07 shall continue for the benefit of the retiring Trustee.

Section 7.09. Successor Trustee by Merger, etc. If the Trustee consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust business or assets to, another corporation or banking association, the resulting, surviving or transferee corporation without any further act shall be the successor Trustee.

In case at the time such successor or successors by merger, conversion or consolidation to the Trustee with respect to the Securities of any one or more Series shall succeed to the trusts created by this Indenture any of the Securities of the applicable Series shall have been authenticated but not delivered, any such successor to such Trustee may adopt the certificate of authentication of any predecessor trustee, and deliver such Securities of the applicable Series so authenticated; and in case at that time any of the Securities of such Series shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any predecessor hereunder or in the name of the successor to the Trustee; and in all such cases such certificates shall have the full force which it is anywhere in the Securities of such Series or in this Indenture provided that the certificate of the Trustee shall have.

Section 7.10. Eligibility; Disqualification. The Trustee shall at all times satisfy the requirements of TIA § 310(a). The Trustee shall have a combined capital and surplus of at least \$100,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with TIA § 310(b); provided, however, that there shall be excluded from the operation of TIA § 310(b)(1) any indenture or indentures under which other securities or certificates of interest or participation in other securities of the Company are outstanding if the requirements for such exclusion set forth in TIA § 310(b)(1) are met.

Section 7.11. Preferential Collection of Claims against Company. The Trustee shall comply with TIA § 311(a), excluding any creditor relationship listed in TIA § 311(b). A Trustee who has resigned or been removed shall be subject to TIA § 311(a) to the extent indicated.

ARTICLE 8

SATISFACTION AND DISCHARGE; DEFEASANCE

Section 8.01. Satisfaction and Discharge of Indenture. This Indenture, with respect to Securities of any Series (if all Series issued under this Indenture are not to be effected) shall, upon Company Order, cease to be of further effect (except as hereinafter provided in this Section 8.01), and the Trustee, at the expense of the Company, shall execute such instruments reasonably requested by the Company acknowledging satisfaction and discharge of this Indenture, when

(a) Either

(i) all Securities of such Series theretofore authenticated and delivered (other than (A) Securities that have been destroyed, lost or stolen and that have been replaced or paid or (B) Securities for whose payment money 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 2.05 and 4.07) have been delivered to the Trustee for cancellation; or

(ii) all such Securities of such Series not theretofore delivered to the Trustee for cancellation:

(A) have become due and payable, or

(B) will become due and payable at their Stated Maturity within one year, or

(C) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company, or

(D) are deemed paid and discharged pursuant to Section 8.03, as applicable;

and the Company, in the case of (A), (B) or (C) above, has deposited or caused to be deposited with the Trustee as trust funds in trust an amount sufficient for the purpose of paying and discharging the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal of, premium, if any, and interest on, and any mandatory sinking fund payments to the date of such deposit (in the case of Securities of such Series which have become due and payable on or prior to the date of such deposit) or to the Stated Maturity or redemption date, as the case may be;

(iii) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(iv) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 7.07, and, if money shall have been deposited with the Trustee pursuant to clause (a) of this Section, the provisions of Sections 2.04, 2.07, 2.08, 4.07 (last paragraph only), 8.01, 8.02 and 8.05 shall survive.

Section 8.02. Application of Trust Funds; Indemnification. (a) Subject to the provisions of Section 8.05, all money deposited with the Trustee pursuant to Section 8.01, all money and U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.03 or 8.04, and all money received by the Trustee in respect of U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.03 or 8.04, shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company if acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and interest for whose payment such money has been deposited with or received by the Trustee or to make mandatory sinking fund payments or analogous payments as contemplated by Sections 8.03 or 8.04.

(a) The Company shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against U.S. Government Obligations or Foreign Government Obligations deposited pursuant to Sections 8.03 or 8.04, or the interest and principal received in respect of such obligations other than any payable by or on behalf of Holders.

(b) The Trustee shall deliver or pay to the Company from time to time upon Company Request any U.S. Government Obligations or Foreign Government Obligations or money held by it as provided in Sections 8.03 or 8.04 which, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, are then in excess of the amount thereof which then would have been required to be deposited for the purpose for which such U.S. Government Obligations or Foreign Government Obligations or money were deposited or received. This provision shall not authorize the sale by the Trustee of any U.S. Government Obligations or Foreign Government Obligations held under this Indenture.

Section 8.03. Legal Defeasance of Securities of any Series. Unless this Section 8.03 is otherwise specified, pursuant to Section 2.02(x), to be inapplicable to Securities of any Series, the Company shall be deemed to have paid and discharged the entire indebtedness on all the outstanding Securities of such Series on the 91st day after the date of the deposit referred to in subparagraph (d) hereof, and the provisions of this Indenture, as it relates to such outstanding Securities of such Series, shall no longer be in effect (and the Trustee, at the expense of the Company, shall, at Company Request, execute such instruments reasonably requested by the Company acknowledging the same), except as to:

(a) the rights of Holders of Securities of such Series to receive, from the trust funds described in subparagraph (d) hereof, (i) payment of the principal of and each installment of principal of and interest on the outstanding Securities of such Series on the Stated Maturity of such principal or installment of principal or interest and (ii) the benefit of any mandatory sinking fund payments applicable to the Securities of such Series on the day on which such payments are due and payable in accordance with the terms of this Indenture and the Securities of such Series;

(b) the provisions of Sections 2.04, 2.07, 2.08, 8.02, 8.03 and 8.05; and

(c) the rights, powers, trust and immunities of the Trustee hereunder;

provided that, the following conditions shall have been satisfied:

(d) the Company shall have deposited or caused to be deposited irrevocably with the Trustee as trust funds in trust for the purpose of making the following payments, specifically pledged as security for and dedicated solely to the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars (or such other money or currencies as shall then be

legal tender in the United States) and/or U.S. Government Obligations, or (ii) in the case of Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof, in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge each installment of principal (including mandatory sinking fund or analogous payments) of and interest, if any, on all the Securities of such Series on the dates such installments of interest or principal are due;

(e) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(f) 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 or during the period ending on the 91st day after such date;

(g) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel from a nationally recognized law firm to the effect that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution 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 Securities of such Series will not recognize income, gain or loss for Federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to Federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;

(h) the Company shall have delivered to the Trustee an Officers' Certificate stating that the deposit was not made by the Company with the intent of preferring the Holders of the Securities of such Series over any other creditors of the Company or with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company;

(i) such deposit shall not result in the trust arising from such deposit constituting an investment company (as defined in the Investment Company Act of 1940, as amended), or such trust shall be qualified under such Act or exempt from regulation thereunder; and

(j) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to the defeasance contemplated by this Section 8.03 have been complied with.

Section 8.04. **Covenant Defeasance.** Unless this Section 8.04 is otherwise specified pursuant to Section 2.02(x) to be inapplicable to Securities of any Series, on and after the date of the deposit referred to in subparagraph (a) hereof, the Company may omit to comply with any term, provision or condition set forth under Sections 4.02, 4.03, 4.04, 4.05 and 5.01 as well as any additional covenants contained in a supplemental indenture hereto for a particular Series of Securities or a Board Resolution or an Officers' Certificate delivered pursuant to Section 2.02(x) (and the failure to comply with any such covenants shall not constitute a Default or Event of Default under Section 6.01) and the occurrence of any event described in clause (e) of Section 6.01 shall not constitute a Default or Event of Default hereunder, with respect to the Securities of such Series, provided that the following conditions shall have been satisfied:

(a) with reference to this Section 8.04, the Company has deposited or caused to be irrevocably deposited (except as provided in Section 8.02(c)) with the Trustee as trust funds in trust, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars (or such other money or currencies as shall then be legal tender in the United States) and/or U.S. Government Obligations, or

(ii) in the case of Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof, in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, to pay principal and interest, if any, on and any mandatory sinking fund in respect of the Securities of such Series on the dates such installments of interest or principal are due;

(b) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(c) 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;

(d) the Company shall have delivered to the Trustee an Opinion of Counsel from a nationally recognized law firm confirming that Holders of the Securities of such Series will not recognize income, gain or loss for federal income tax purposes as a result of such deposit and 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 deposit and defeasance had not occurred;

(e) the Company shall have delivered to the Trustee an Officers' Certificate stating the deposit was not made by the Company with the intent of preferring the Holders of the Securities of such Series over any other creditors of the Company or with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company; and

(f) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the defeasance contemplated by this Section 8.04 have been complied with.

Section 8.05. Repayment to Company. The Trustee and the Paying Agent shall promptly pay to the Company (or its designee) upon Company Order any excess moneys or U.S. Government Obligations held by them at any time. The provisions of the last paragraph of Section 4.07 shall apply to any money held by the Trustee or any Paying Agent that remains unclaimed for two years after the Maturity of any Series or Securities for which money or U.S. Government Obligations have been deposited pursuant to Sections 8.03 and 8.04.

Section 8.06. Effect of Subordination Provisions. Unless otherwise expressly established pursuant to Section 2.02 with respect to the Subordinated Securities of any Series, the provisions of Article 10 hereof, insofar as they pertain to the Subordinated Securities of such series, and the Subordination Provisions established pursuant to Section 2.02(i) with respect to such Series, are hereby expressly made subject to the provisions for satisfaction and discharge and defeasance and covenant defeasance set forth in this Article 8 and, anything herein to the contrary notwithstanding, upon the effectiveness of such satisfaction and discharge and defeasance and covenant defeasance pursuant to this Article 8 with respect to the Securities of such Series, such Securities shall thereupon cease to be so subordinated and shall no longer be subject to the provisions of Article 10 or the Subordination Provisions established pursuant to Section 2.02(i) with respect to such series and, without limitation to the foregoing, all moneys, U.S. Government Obligations and other securities or property deposited with the Trustee (or other qualifying trustee) in trust in connection with such satisfaction and discharge, defeasance or covenant defeasance, as the case may be, and all proceeds therefrom may be applied to pay the principal of, premium, if any, on, and mandatory sinking fund payments, if any with respect to the Securities of such Series as and when the same shall become due and payable notwithstanding the provisions of Article 10 or such Subordination Provisions.

ARTICLE 9
AMENDMENTS AND WAIVERS

Section 9.01. Without Consent of Holders. The Company and the Trustee may amend or supplement this Indenture or the Securities of one or more Series without the consent of any Securityholder:

(a) to convey, transfer, assign, mortgage or pledge to the Trustee as security for the Securities of one or more Series any property or assets;

(b) to comply with Article 5;

(c) to add to the covenants of the Company such further covenants, restrictions, conditions or provisions as the Company and the Trustee shall consider to be for the protection of the Holders of Securities, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein set forth; provided, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default;

(d) add a guarantor or permit any Person to guarantee the obligations under any Series of Securities;

(e) to cure any ambiguity, defect or inconsistency;

(f) to provide for the issuance of and establish the form and terms and conditions of Securities of any Series as permitted by this Indenture;

(g) to conform to any provision of the "Description of the Notes" section, "Description of Debt Securities" section or other relevant section describing the terms of the Securities of the applicable prospectus, prospectus supplement, offering circular, offering memorandum or other relevant offering document;

(h) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more Series and to 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;

(i) to provide for uncertificated Securities in addition to or in place of certificated Securities;

(j) to make any change that does not materially adversely affect the rights of any Securityholder; and

(k) to comply with requirements of the SEC in order to effect or maintain the qualification of this Indenture under the TIA.

Section 9.02. With Consent of Holders. The Company and the Trustee may enter into a supplemental indenture with the written consent of the Holders of at least a majority in principal amount of the outstanding Securities of each Series affected by such supplemental indenture (including consents obtained in connection with a tender offer or exchange offer for the Securities of such Series), for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this

Indenture or of any supplemental indenture or of modifying in any manner the rights of the Securityholders of each such Series. Except as provided in Section 6.13, the Holders of at least a majority in principal amount of the outstanding Securities of each Series affected by such waiver by notice to the Trustee (including consents obtained in connection with a tender offer or exchange offer for the Securities of such Series) may waive compliance by the Company with any provision of this Indenture or the Securities with respect to such Series.

It shall not be necessary for the consent of the Holders of Securities under this Section 9.02 to approve the particular form of any proposed supplemental indenture or waiver, but it shall be sufficient if such consent approves the substance thereof. After a supplemental indenture or waiver under this section becomes effective, the Company shall send to the Holders of Securities affected thereby and, if any Bearer Securities affected thereby are outstanding, publish on one occasion in an Authorized Newspaper, a notice briefly describing the supplemental indenture or waiver. Any failure by the Company to send or publish such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

Section 9.03. Limitations. Without the consent of each Securityholder affected, an amendment or waiver may not:

- (a) extend the final maturity of any Security;
- (b) reduce the principal amount thereof, or premium thereon, if any;
- (c) reduce the rate or extend the time of payment of interest thereon,
- (d) reduce any amount payable on redemption thereof;
- (e) make the principal thereof (including any amount in respect of original issue discount), or premium thereon, if any, or interest thereon payable in any coin or currency other than that provided in the Securities or in accordance with the terms thereof;
- (f) reduce the amount of the principal of a Discount Security that would be due and payable upon an acceleration of the maturity thereof pursuant to Section 6.02 or the amount thereof provable in bankruptcy pursuant to Section 6.04;
- (g) in the case of Subordinated Securities of any series, modify any of the Subordination Provisions or the definition of "Senior Indebtedness" relating to such series in a manner adverse to the holders of such Subordinated Securities;
- (h) alter the provisions of Sections 11.15 or 11.16;
- (i) impair or affect the right of any Securityholder to institute suit for the payment thereof when due or, if the Securities provide therefor, any right of repayment at the option of the Securityholder;
- (j) reduce the aforesaid percentage of Securities of any Series, the consent of the Holders of which is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture; or
- (k) modify any provision of this Section 9.03.

Section 9.04. Compliance with Trust Indenture Act. Every amendment to this Indenture or the Securities of one or more Series shall be set forth in a supplemental indenture hereto that complies with the TIA as then in effect.

Section 9.05. Revocation and Effect of Consents. Until an amendment or waiver becomes effective, a consent to it by a Holder of a Security is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent is not made on any Security. However, any such Holder or subsequent Holder may revoke the consent as to his Security or portion of a Security if the Trustee receives the notice of revocation before the date the amendment or waiver becomes effective.

Any amendment or waiver once effective shall bind every Securityholder of each Series affected by such amendment or waiver unless it is of the type described in any of clauses (a) through (g) of Section 9.03. In that case, the amendment or waiver shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Securityholders entitled to give their consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding the immediately preceding paragraph, those Persons who were Securityholders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to give such consent or to revoke any consent previously given or to take any such action, whether or not such Persons continue to be Securityholders after such record date.

Section 9.06. Notation on or Exchange of Securities. The Trustee may place an appropriate notation about an amendment or waiver on any Security of any Series thereafter authenticated. The Company in exchange for Securities of that Series may issue and the Trustee shall authenticate upon written request new Securities of that Series that reflect the amendment or waiver.

Section 9.07. Trustee Protected. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 7.01) shall be fully protected in relying upon, an Officers' Certificate and an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee shall sign all supplemental indentures, except that the Trustee need not sign any supplemental indenture that adversely affects its rights.

ARTICLE 10 SUBORDINATION OF SECURITIES

Section 10.01. Agreement to Subordinate. The Company, for itself, its successors and assigns, covenants and agrees, and each Holder of Subordinated Securities of any Series by his acceptance thereof, likewise covenants and agrees, that the payment of the principal of (and premium, if any) and interest, if any, on, and mandatory sinking fund payments, if any, in respect of each and all of the Subordinated Securities of such series shall be expressly subordinated, to the extent and in the manner provided in the Subordination Provisions established with respect to the Subordinated Securities of such Series pursuant to Section 2.02(i) hereof, in right of payment to the prior payment in full of all Senior Debt with respect to such Series.

ARTICLE 11 MISCELLANEOUS

Section 11.01. Trust Indenture Act Controls. If any provision of this Indenture limits, qualifies, or conflicts with another provision which is required or deemed to be included in this Indenture by the TIA, such required or deemed provision shall control.

Section 11.02. Notices. Any notice or communication by the Company or the Trustee to the other is duly given if in writing and delivered in person, mailed by first-class mail or delivered by electronic transmission:

if to the Company:

if to the Trustee:

The Company or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

Any notice or communication to a Securityholder shall be provided by electronic transmission or by first-class mail to his address shown on the register kept by the Registrar and, if any Bearer Securities are outstanding, published in an Authorized Newspaper. Failure to provide a notice or communication to a Securityholder of any Series or any defect in it shall not affect its sufficiency with respect to other Securityholders of that or any other Series.

If a notice or communication is provided or published in the manner provided above, within the time prescribed, it is duly given, whether or not the Securityholder receives it.

If the Company provides a notice or communication to Securityholders, it shall provide a copy to the Trustee and each Agent at the same time.

In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice by the Company when such notice is required to be given pursuant to any provision of this Indenture, then any manner of giving such notice as shall be reasonably satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice.

Notwithstanding anything in this Indenture to the contrary, wherever notice is to be given to Securityholders of Registered Global Securities, it shall be sufficient if such notice is given in accordance with the procedures of the Depositary.

Section 11.03. Communication by Holders with Other Holders. Securityholders of any Series may communicate pursuant to TIA § 312(b) 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 all Series. The Company, the Trustee, the Registrar and anyone else shall have the protection of TIA § 312(c).

Section 11.04. Certificate and Opinion as to Conditions Precedent. Upon any request or application by the Company to the Trustee to take or refrain from taking any action under this Indenture, the Company shall furnish to the Trustee:

(a) an Officers' Certificate stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(b) an Opinion of Counsel stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

Section 11.05. Statements Required in Certificate or Opinion. Each certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture shall include:

(a) a statement that the person making such certificate or opinion has read such covenant or condition;

(b) 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;

(c) a statement that, in the opinion of such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Section 11.06. Rules by Trustee and Agents. The Trustee may make reasonable rules for action by or a meeting of Securityholders of one or more Series. Any Agent may make reasonable rules and set reasonable requirements for its functions.

Section 11.07. Legal Holidays. Unless otherwise provided by Board Resolution, Officers' Certificate or supplemental indenture for a particular Series, a "Legal Holiday" is a Saturday, Sunday or a day on which banking institutions in the city (or in any of the cities, if more than one) in which amounts are payable, as specified in the form of such Security, are not required by any applicable law or regulation to be open. If a payment date for the payment of principal or interest on any Security falls on a Legal Holiday, such payment shall be made on the next succeeding Business Day, and no interest shall accrue for the intervening period. If a regular record date is a Legal Holiday, the record date shall not be affected.

Section 11.08. No Recourse Against Others. No recourse under or upon any obligation, covenant or agreement contained in this Indenture, or in any Security, or because of any indebtedness evidenced thereby, shall be had against any incorporator, as such, or against any past, present or future stockholder, officer or director, as such, of the Company or of any successor, either directly or through the Company or any successor, under any rule of law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise, all such liability being expressly waived and released by the acceptance of the Securities and the coupons, if any, appertaining thereto by the Holders thereof and as part of the consideration for the issue of the Securities and the coupons, if any, appertaining thereto.

Section 11.09. Counterparts. This Indenture may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

Section 11.10. Governing Laws; Waiver of Jury Trial. THIS INDENTURE AND EACH SECURITY SHALL BE DEEMED TO BE A CONTRACT UNDER THE LAWS OF THE STATE OF NEW YORK, AND FOR ALL PURPOSES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF SUCH STATE, INCLUDING, WITHOUT LIMITATION, SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW AND NEW YORK CIVIL PRACTICE LAWS AND RULES 327(b).

EACH OF THE COMPANY AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE NOTES OR THE TRANSACTION CONTEMPLATED HEREBY.

Section 11.11. No Adverse Interpretation of Other Agreements. This Indenture may not be used to interpret another indenture, loan or debt agreement of the Company or a Subsidiary. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

Section 11.12. Successors. All agreements of the Company in this Indenture and the Securities shall bind its successor. All agreements of the Trustee in this Indenture shall bind its successor.

Section 11.13. Severability. In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 11.14. Table of Contents, Headings, Etc. The Table of Contents, Cross Reference Table, and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 11.15. Securities in a Foreign Currency. Unless otherwise specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate delivered pursuant to Section 2.02 of this Indenture with respect to a particular Series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all Series or all Series affected by a particular action at the time outstanding and, at such time, there are outstanding Securities of any Series which are denominated in a coin or currency other than Dollars, then the principal amount of Securities of such Series which shall be deemed to be outstanding for the purpose of taking such action shall be that amount of Dollars that could be obtained for such amount at the Market Exchange Rate at such time. For purposes of this Section 11.15, "Market Exchange Rate" shall mean the noon Dollar buying rate in New York City for cable transfers of that currency as published by the Federal Reserve Bank of New York. If such Market Exchange Rate is not available for any reason with respect to such currency, the Trustee shall use, in its sole discretion and without liability on its part, such quotation of the Federal Reserve Bank of New York or quotations from one or more major banks in The City of New York or in the country of issue of the currency in question. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a Series denominated in currency other than Dollars in connection with any action taken by Holders of Securities pursuant to the terms of this Indenture.

All decisions and determinations of the Trustee regarding the Market Exchange Rate or any alternative determination provided for in the preceding paragraph shall be in its sole discretion and shall, in the absence of manifest error, be conclusive to the extent permitted by law for all purposes and irrevocably binding upon the Company and all Holders.

Section 11.16. Judgment Currency. The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest or other amount on the Securities of any Series (the "Required Currency") into a currency in which a judgment will be rendered (the "Judgment Currency"), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a New York Banking Day, then, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the New York Banking Day preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, any recovery pursuant to any judgment (whether or not entered in accordance with subsection (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable, and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture. For purposes of the foregoing, "New York Banking Day" means any day except a Saturday, Sunday or a legal holiday in The

City of New York on which banking institutions are authorized or required by law, regulation or executive order to close.

Section 11.17. Acts of Holders. (a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by a specified percentage in principal amount of the Securityholders of any or all Series may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such specified percentage of Securityholders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "ACT" of the Holders signing such instrument or instruments and so voting at any such meeting. Proof of execution of any instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Sections 7.01 and 7.02) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section 11.17.

(a) Subject to Sections 7.01 and 7.02, the execution of any instrument by a Securityholder or his agent or proxy may be proved in accordance with such reasonable rules and regulations as may be prescribed by the Trustee or in such manner as shall be satisfactory to the Trustee. The holding of Registered Securities shall be proved by the Security register or by a certificate of the registrar thereof.

(b) The Company, the Trustee and any agent of the Company or the Trustee may deem and treat the person in whose name any Security shall be registered upon the Security register for such series as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notation of ownership or other writing thereon) for the purpose of receiving payment of or on account of the principal of and, subject to the provisions of this Indenture, interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any agent of the Company or the Trustee shall be affected by any notice to the contrary. The Company, the Trustee and any agent of the Company or the Trustee may treat the Holder of any Bearer Security as the absolute owner of such Bearer Security (whether or not such Bearer Security shall be overdue) for the purpose of receiving payment thereof or on account thereof and for all other purposes, and neither the Company, the Trustee, nor any agent of the Company or the Trustee shall be affected by any notice to the contrary. All such payments so made to any such person, or upon his order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for moneys payable upon any such Bearer Security. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Trustee or any Agent from giving effect to any written certification, proxy or other authorization furnished by the Depository or impair, as between the Depository and its members, the operation of customary practices governing the exercise of the rights of a holder of a beneficial interest in any Registered Global Security

(c) At any time prior to (but not after) the evidencing to the Trustee, as provided in this Section 11.17, of the taking of any action by the Holders of the percentage in aggregate principal amount of the Securities of any or all series, as the case may be, specified in this Indenture in connection with such action, any Holder of a Security the serial number of which is shown by the evidence to be included among the serial numbers of the Securities the Holders of which have consented to such action may, by filing written notice at the Corporate Trust Office and upon proof of holding as provided in this Article, 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 Securities issued in exchange or substitution therefor or on registration of transfer thereof, irrespective of whether or not any notation in regard thereto is made upon any such Security. Any action taken by the Holders of the percentage in aggregate principal amount of the Securities of any or all series, as the case may be, 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 affected by such action.

Section 11.18. Force Majeure. In no event shall the Trustee or any Agent 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 and such Agent shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

ARTICLE 12 SINKING FUNDS

Section 12.01. Applicability of Article. The provisions of this Article shall be applicable to any sinking fund for the retirement of the Securities of a Series, except as otherwise permitted or required by any form of Security of such Series issued pursuant to this Indenture.

The minimum amount of any sinking fund payment provided for by the terms of the Securities of any Series is herein referred to as a "mandatory sinking fund payment" and any other amount provided for by the terms of Securities of such 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 12.02. Each sinking fund payment shall be applied to the redemption of Securities of any Series as provided for by the terms of the Securities of such Series.

Section 12.02. Satisfaction of Sinking Fund Payments with Securities. The Company may, in satisfaction of all or any part of any sinking fund payment with respect to the Securities of any Series to be made pursuant to the terms of such Securities (a) deliver outstanding Securities of such Series to which such sinking fund payment is applicable (other than any of such Securities previously called for mandatory sinking fund redemption) and (b) apply as credit Securities of such Series to which such sinking fund payment is applicable and which have been redeemed either at the election of the Company pursuant to the terms of such Series of Securities (except pursuant to any mandatory sinking fund) or through the application of permitted optional sinking fund payments or other optional redemptions pursuant to the terms of such Securities, provided that such Securities have not been previously so credited. Such Securities shall be received by the Trustee, together with an Officers' Certificate with respect thereto, not later than 15 days prior to the date on which the Trustee begins the process of selecting Securities for redemption, and shall be credited for such purpose by the Trustee at the 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. If as a result of the delivery or credit of Securities in lieu of cash payments pursuant to this Section 12.02, the principal amount of Securities of such Series to be redeemed in order to exhaust the aforesaid cash payment shall be less than \$100,000, the Trustee need not call Securities of such Series for redemption, except upon receipt of a Company Order that such action be taken, and such cash payment shall be held by the Trustee or a Paying Agent and applied to the next succeeding sinking fund payment, provided, however, that the Trustee or such Paying Agent shall from time to time upon receipt of a Company Order pay over and deliver to the Company any cash payment so being held by the Trustee or such Paying Agent upon delivery by the Company to the Trustee of Securities of that Series purchased by the Company having an unpaid principal amount equal to the cash payment required to be released to the Company.

Section 12.03. Redemption of Securities for Sinking Fund. Not less than 45 days (unless otherwise indicated in the Board Resolution, supplemental indenture hereto or Officers' Certificate in respect of a particular Series of Securities) prior to each sinking fund payment date for any Series of Securities, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that Series pursuant to the terms of that Series, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting of Securities of that Series pursuant to Section 12.02, and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and the Company shall thereupon be obligated to pay the amount therein specified. Not less than 30 days (unless otherwise indicated in the Board Resolution, Officers' Certificate or supplemental indenture in respect of a

particular Series of Securities) 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 3.02 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 3.03. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 3.04, 3.05 and 3.06.

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

Vaxxinity, Inc.

By: _____
Name:
Title:

[], Trustee

By: _____
Name:
Title:

OPINION OF DAVIS POLK & WARDWELL LLP

August 9, 2023

Vaxxinity, Inc.
505 Odyssey Way
Merritt Island, Florida 32953

Ladies and Gentlemen:

Vaxxinity, Inc., a Delaware corporation (the “**Company**”), is filing with the Securities and Exchange Commission a Registration Statement on Form S-3 (the “**Registration Statement**”) for the purpose of registering under the Securities Act of 1933, as amended (the “**Securities Act**”), (a) shares of Class A common stock, par value \$0.0001 per share (the “**Class A Common Stock**”), of the Company, including shares of Class A Common Stock having an aggregate offering price of up to \$100,000,000 (such shares of Class A Common Stock, the “**Offered Shares**”) from time to time through Jefferies LLC pursuant to the Open Market Sale Agreement dated August 9, 2023 (the “**Sales Agreement**”) among the Company and Jefferies LLC (the “**Sales Agent**”); (b) shares of preferred stock, par value \$0.0001 per share (the “**Preferred Stock**”), of the Company; (c) the Company’s debt securities (collectively, the “**Debt Securities**”), which may be issued pursuant to an indenture, between the Company and a trustee to be named therein, as trustee (the “**Trustee**”) (the “**Indenture**”); (d) warrants of the Company (the “**Warrants**”), which may be issued under one or more warrant agreements (each, a “**Warrant Agreement**”) to be entered into between the Company and the warrant agent to be named therein (the “**Warrant Agent**”); (e) subscription rights (the “**Subscription Rights**”), which may be issued under one or more subscription rights agreements (each, a “**Subscription Rights Agreement**”) to be entered into between the Company and the subscription agent to be named therein (the “**Purchase Contract Agent**”); and (f) units (the “**Units**”) to be issued under one or more unit agreements to be entered into among the Company, a bank or trust company, as unit agent (the “**Unit Agent**”), and the holders from time to time of the Units (each such unit agreement, a “**Unit Agreement**”).

We, as your counsel, have examined originals or copies of such documents, corporate records, certificates of public officials and other instruments as we have deemed necessary or advisable for the purpose of rendering this opinion.

In rendering the opinions expressed herein, we have, without independent inquiry or investigation, assumed that (i) all documents submitted to us as originals are authentic and complete, (ii) all documents submitted to us as copies conform to authentic, complete originals, (iii) all documents filed as exhibits to the Registration Statement that have not been executed will conform to the forms thereof, (iv) all signatures on all documents that we reviewed are genuine, (v) all natural persons executing documents had and have the legal capacity to do so, (vi) all statements in certificates of public officials and officers of the Company that we reviewed were and are accurate and (vii) all representations made by the Company as to matters of fact in the documents that we reviewed were and are accurate.

Based upon the foregoing, and subject to the additional assumptions and qualifications set forth below, we advise you that, in our opinion:

1. Assuming the terms of any sales of Offered Shares pursuant to the Sales Agreement are approved by the Company’s board of directors or a properly constituted and authorized committee thereof (or any of them delegates such approval to officers and such terms are approved by such officers), the Offered Shares have been duly authorized and, when issued and delivered to and paid for by the Sales Agent pursuant to the Sales Agreement, will be validly issued, fully paid and non-assessable.

2. When the necessary corporate action on the part of the Company has been taken to authorize the issuance and sale of shares of Class A Common Stock (other than the Offered Shares) proposed to be sold by the Company, and when such shares of Class A Common Stock are issued and delivered in accordance with the applicable underwriting or other agreement against payment therefor (in excess of par value thereof) or upon conversion or exercise of any security offered under the Registration Statement (the "**Offered Security**"), in accordance with the terms of such Offered Security or the instrument governing such Offered Security providing for such conversion or exercise as approved by the Board of Directors of the Company, for the consideration approved by such Board of Directors (which consideration is not less than the par value of the Class A Common Stock), such shares of Class A Common Stock will be validly issued, fully-paid and non-assessable.
3. Upon designation of the relative rights, preferences and limitations of any series of Preferred Stock by the Board of Directors of the Company and the proper filing with the Secretary of State of the State of Delaware of a Certificate of Designation relating to such series of Preferred Stock, all necessary corporate action on the part of the Company will have been taken to authorize the issuance and sale of such series of Preferred Stock proposed to be sold by the Company, and when such shares of Preferred Stock are issued and delivered in accordance with the applicable underwriting or other agreement against payment therefor (in excess of par value thereof), such shares of Preferred Stock will be validly issued, fully paid and non-assessable.
4. When the Indenture and any supplemental indenture to be entered into in connection with the issuance of any Debt Securities have been duly authorized, executed and delivered by the Trustees and the Company; the specific terms of a particular series of Debt Securities have been duly authorized and established in accordance with the Indenture; and such Debt Securities have been duly authorized, executed, authenticated, issued and delivered in accordance with the Indenture and the applicable underwriting or other agreement against payment therefor, such Debt Securities will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability, provided that we express no opinion as to (w) the enforceability of any waiver of rights under any usury or stay law, (x) the effect of fraudulent conveyance, fraudulent transfer or similar provision of applicable law on the conclusions expressed above or (y) the validity, legally binding effect or enforceability of any section of the Indenture that requires or relates to adjustments to the conversion rate at a rate or in an amount that a court would determine in the circumstances under applicable law to be commercially unreasonable or a penalty or forfeiture or (z) the validity, legally binding effect or enforceability of any provision that permits holders to collect any portion of stated principal amount upon acceleration of the Debt Securities to the extent determined to constitute unearned interest.
5. When the Warrant Agreement to be entered into in connection with the issuance of any Warrants has been duly authorized, executed and delivered by the Warrant Agent and the Company; the specific terms of the Warrants have been duly authorized and established in accordance with the Warrant Agreement; and such Warrants have been duly authorized, executed, issued and delivered in accordance with the Warrant Agreement and the applicable underwriting or other agreement against payment therefor, such Warrants will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability, and may be subject to possible judicial or regulatory actions giving effect to governmental actions or foreign laws affecting creditors' rights.

6. When the Subscription Rights Agreement to be entered into in connection with the issuance of any Subscription Rights has been duly authorized, executed and delivered by the Subscription Agent and the Company; the specific terms of the Subscription Rights have been duly authorized and established in accordance with the Subscription Rights Agreement; and such Subscription Rights have been duly authorized, executed, issued and delivered in accordance with the Subscription Rights Agreement and the applicable underwriting or other agreement against payment therefor, such Subscription Rights will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability, and may be subject to possible judicial or regulatory actions giving effect to governmental actions or foreign laws affecting creditors' rights.
7. When the Unit Agreement to be entered into in connection with the issuance of any Units has been duly authorized, executed and delivered by the Unit Agent and the Company; the specific terms of the Units have been duly authorized and established in accordance with the Unit Agreement; and such Units have been duly authorized, executed, issued and delivered in accordance with the Unit Agreement and the applicable underwriting or other agreement against payment therefor, such Units will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability, and may be subject to possible judicial or regulatory actions giving effect to governmental actions or foreign laws affecting creditors' rights.

In connection with the opinions expressed above, we have assumed that, at or prior to the time of the delivery of any such security, (i) the Board of Directors of the Company shall have duly established the terms of such security and duly authorized the issuance and sale of such security and such authorization shall not have been modified or rescinded; (ii) the Company shall remain validly existing as a corporation in good standing under the laws of the State of Delaware; (iii) the Registration Statement shall have been declared effective and such effectiveness shall not have been terminated or rescinded; (iv) the Indenture, the Debt Securities, the Warrant Agreement, the Subscription Rights Agreement and the Unit Agreement are each valid, binding and enforceable agreements of each party thereto (other than as expressly covered above in respect of the Company); and (v) there shall not have occurred any change in law affecting the validity or enforceability of such security. We have also assumed that (i) the terms of any security whose terms are established subsequent to the date hereof and the issuance, execution, delivery and performance by the Company of any such security (a) require no action by or in respect of, or filing with, any governmental body, agency or official and (b) do not contravene, or constitute a default under, any provision of applicable law or public policy or regulation or any judgment, injunction, order or decree or any agreement or other instrument binding upon the Company and (ii) any Warrant Agreement, Subscription Rights Agreement and Unit Agreement will be governed by the laws of the State of New York.

We are members of the Bar of the State of New York and the foregoing opinion is limited to the laws of the State of New York and the General Corporation Law of the State of Delaware.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement referred to above and further consent to the reference to our name under the caption "Legal Matters" in the prospectus, which is a part of the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Davis Polk & Wardwell LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 27, 2023, relating to the consolidated financial statements of Vaxxinity, Inc., which appears in Vaxxinity, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022. We also consent to the reference to us under the heading "Experts" in this Registration Statement.

/s/ Armanino LLP
Armanino LLP
San Ramon, California

August 9, 2023

Calculation of Filing Fee Tables

S-3
(Form Type)

Vaxxinity, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	Equity	Class A Common Stock	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Equity	Preferred Stock	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Debt	Debt Securities	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Other	Warrants	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Other	Subscription Rights	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Other	Purchase Contracts	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Other	Units	Rule 457(o)	(1)	(1)	(1)	(1)	(1)				
Fees to be Paid	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf	Rule 457(o)	(1)	(1)	\$300,000,000	0.00011020	\$33,060				
Fees Previously Paid	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Carry Forward Securities												
Carry Forward Securities	N/A	N/A	N/A	N/A		N/A			N/A	N/A	N/A	N/A
Total Offering Amounts						\$300,000,000		\$33,060				
Total Fees Previously Paid								—				
Total Fee Offsets								—				
Net Fee Due								\$33,060				

- (1) An unspecified number of securities of each identified class is being registered as may from time to time be issued at unspecified prices, including securities that may be issued upon exercise, conversion or exchange. Separate consideration may or may not be received for securities that are issuable on exercise, conversion or exchange of other securities. The aggregate maximum offering price of all securities offered pursuant to this registration statement will not exceed \$300,000,000.

