As filed with the Securities and Exchange Commission on February 27, 2025.

Registration No. 333-

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

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

Spyre Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**46-4312787**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

221 Crescent Street
Building 23, Suite 105
Waltham, MA 02453
(617) 651-5940
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Heidy King-Jones
Chief Legal Officer and Corporate Secretary
Spyre Therapeutics, Inc.
221 Crescent Street
Building 23, Suite 105
Waltham, MA 02453
(617) 651-5940
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
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One Embarcadero Center, Suite 2600
San Francisco, CA 94111
(415) 393-8373

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, as amended, 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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains the following documents:

- A base prospectus, which covers the offering, issuance and sale by us of the securities identified below from time to time in one or more offerings; and
- A sales agreement prospectus supplement covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $179,059,869 of our common stock that may be issued and sold under a sales agreement, dated September 6, 2024, with TD Securities (USA) LLC, or TD Cowen (the "Sales Agreement").

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus other than the shares under the Sales Agreement will be specified in a prospectus supplement to the base prospectus. The Sales Agreement prospectus supplement immediately follows the base prospectus. The $179,059,869 of our common stock that may be offered, issued and sold under the sales agreement prospectus is included in the $500,000,000 of securities that may be offered, issued and sold by us under the base prospectus.

Pursuant to Rule 415(a)(6) under the Securities Act of 1933, as amended (the "Securities Act"), securities with a maximum aggregate price of $69,928,125 registered hereunder are unsold securities (the "Unsold Securities") previously covered by our registration statement on Form S-3 (File No. 333-281975) which was initially filed with the Securities and Exchange Commission on September 6, 2024 and became effective on September 18, 2024 (the "Prior Registration Statement"), and are included in this registration statement. We paid a filing fee of $10,321.39 (calculated at the filing fee rate in effect at the time of the filing of the Prior Registration Statement) relating to the Unsold Securities under the Prior Registration Statement. We may continue to offer and sell under the Prior Registration Statement the Unsold Securities being registered hereunder. To the extent that, after the filing date hereof and prior to the effectiveness of this registration statement, we sell any Unsold Securities under the Prior Registration Statement, we will identify in a pre-effective amendment to this registration statement the updated number of Unsold Securities from the Prior Registration Statement to be included in this registration statement pursuant to Rule 415(a)(6) and the updated amount of new securities to be registered on this registration statement. Pursuant to Rule 415(a)(6) under the Securities Act, the offering of Unsold Securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.

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

SUBJECT TO COMPLETION, DATED FEBRUARY 27, 2025

PROSPECTUS

COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
UNITS

From time to time, we may issue, in one or more series or classes, up to $500,000,000 in aggregate principal amount of our common stock, preferred stock, debt securities, warrants and/or units, at prices and on terms that we will determine at the time of the offering.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement. If information in any prospectus supplement is inconsistent with the information in this prospectus, then the information in that prospectus supplement will apply and will supersede the information in this prospectus.

You should read this prospectus, the applicable prospectus supplement and any related free writing prospectus carefully, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

Our shares of common stock are listed on the Nasdaq Global Select Market under the symbol “SYRE.” The last reported sale price of our common stock on the Nasdaq Global Select Market on February 26, 2025 was $19.00 per share. We recommend that you obtain current market quotations for our common stock prior to making an investment decision.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” contained in this prospectus beginning on page 5 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

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

Prospectus dated , 2025

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC" or the "Commission") utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $500,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should carefully read both this prospectus and any prospectus supplement together with additional information under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We have not authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

In this prospectus, unless the context otherwise requires, the terms "Spyre," "Aeglea BioTherapeutics, Inc.," the "Company," "we," "us," and "our" refer to Spyre Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries.

"Spyre" and all product candidate names are our common law trademarks. This prospectus contains additional trade names, trademarks and service marks of other companies, which are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or TM symbols.

All references to "our product candidates," "our programs" and "our pipeline" in this prospectus refer to the research programs with respect to which we have signed a license agreement for, exercised the option to acquire intellectual property license rights to or have the option to acquire intellectual property license rights to pursuant to that certain antibody discovery and option agreement, dated May 25, 2023, and subsequently amended and restated on September 29, 2023 and May 14, 2024, by and among us, Paragon Therapeutics, Inc. and Parapyre Holding LLC.

Please be advised that on September 8, 2023, we effected a reverse stock split of our common stock at a ratio of 1-for-25 (the "Reverse Split"). Except as indicated otherwise, all share numbers related to our common stock disclosed in this prospectus have been adjusted on a post-Reverse Split basis. In addition, on November 28, 2023, we changed our name from "Aeglea BioTherapeutics, Inc." to "Spyre Therapeutics, Inc."

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements involve a number of risks and uncertainties. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement. These statements are based on current expectations of future events.

All statements, other than statements of historical facts contained in this prospectus, including, without limitation, statements regarding: any future payouts under our contingent value rights issued in connection with our acquisition of the assets of Spyre Therapeutics, Inc. ("Pre-Merger Spyre") (the "Asset Acquisition"); our future results of operations and financial position; our business strategy, including our ability to develop best-in-class therapeutics for inflammatory bowel disease (IBD) or rheumatoid arthritis (RA) that meaningfully improve both efficacy and convenience compared to today's standard of care and our ability to develop first-in-class therapeutics for RA; our plans to expand the development of our product candidates, including SPY002, to indications beyond IBD and RA; the SPY001 Phase 1 trial final data readouts not being consistent with or being different than the interim Phase 1 results; the planned dosing regimen for SPY001 and our other product candidates, including the potential for a Q3M-Q6M dosing profile; the potential for increased or accelerated efficacy; the expected design and timing of the platform Phase 2 trial, including timing of each cohort and data readouts; potential alignment with regulatory authorities and anticipated regulatory submissions; expected timing for regulatory feedback; the length of time that we believe our existing cash resources will fund operations; estimated market sizes and potential growth opportunities; expected competitors and competing products; our nonclinical and clinical development activities, including clinical trial designs, submission of investigational new drug applications and foreign equivalents and further clinical evaluation of therapeutic combinations, and related regulatory feedback; the potential efficacy, tolerability, convenience, commercial viability and safety profile of our product candidates, including in combinations; the potential therapeutic benefits and economic value of our product candidates as monotherapies or in combinations and their extended half-life; use of net proceeds from our public offerings; the timing and results of nonclinical studies and clinical trials, including commencement of first-in-human and Phase 2 trials and timing of data readouts; the expected impact of macroeconomic conditions, including inflation, increasing interest rates and volatile market conditions, current or potential bank failures, as well as global events, including the ongoing military conflict in Ukraine, conflict between Israel and various other parties, geopolitical tensions between China and the United States on our operations, and the implementation of tariffs, sanctions, export or import controls, and other measures that restrict international trade by the United States, China or other governments, and the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates. Forward-looking statements generally relate to future events or our future financial or operating performance. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “predict,” “target,” “intend,” “could,” “would,” “should,” “project,” “plan,” “expect,” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all 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 statements we may make. Factors that might cause such a difference include the risks set forth under the caption “Risk Factors” in this prospectus and in the documents incorporated by reference in this prospectus and the applicable prospectus supplement. You should evaluate all forward-looking statements made in this prospectus in the context of these risks and uncertainties. We caution you that the risks, uncertainties and other factors referred to in this prospectus may not contain all of the risks, uncertainties and other factors that may affect our future results and operations.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this prospectus. While we believe that such information provides a reasonable basis for these statements, such information may be limited or

incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements. This prospectus and registration statement also contain or incorporate by reference estimates, projections, and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained such industry, business, market, and other data from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data, and similar sources.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events, except as may be required under applicable U.S. securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

THE COMPANY

We are a clinical-stage biotechnology company utilizing potential best-in-class antibody engineering, dose optimization, and rational therapeutic combinations to target improved efficacy and convenience in the treatment of IBD and other immune-mediated diseases. Our pipeline includes extended half-life antibodies targeting $\alpha 4\beta 7$, TL1A, and IL-23 in development as monotherapies and pair-wise combinations.

For more information about our business, please see our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus.

Corporate Information

We were formed as a Limited Liability Company ("LLC") in Delaware on December 16, 2013 under the name Aeglea BioTherapeutics Holdings, LLC and were converted from a Delaware LLC to a Delaware corporation on March 10, 2015. On June 22, 2023, we completed the acquisition of Pre-Merger Spyre and on November 27, 2023, we completed our corporate rebranding, changing our name to Spyre Therapeutics, Inc.

Our principal executive offices are located at 221 Crescent Street, Building 23, Suite 105, Waltham, MA 02453 and our telephone number is (617) 651-5940. Our website is *www.spyre.com*. The information on, or that can be accessed through, our website is not part of this prospectus and is not incorporated by reference herein. We have included our website address in this prospectus solely as an inactive textual reference.

RISK FACTORS

Investing in our securities involves risks. You should carefully consider the risks, uncertainties and other factors described in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus, as well as the risk factors and other information contained in or incorporated by reference into any accompanying prospectus supplement before investing in any of our securities. Our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected by any of these risks. The risks and uncertainties described in the documents incorporated by reference herein are not the only risks and uncertainties that you may face.

For more information about our SEC filings, please see "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Unless otherwise specified in a prospectus supplement accompanying this prospectus, the net proceeds from the sale by us of the securities to which this prospectus relates will be used to continue to advance our early-stage clinical programs and advance our preclinical pipeline through Investigational New Drug applications into clinical development. We also intend to use a portion of the net proceeds to further develop and support our general infrastructure. Finally, we may use a portion of the net proceeds to in-license, acquire, or invest in additional businesses, technologies, products, or assets, and to fund the development of such new acquired or in-licensed products and technologies. Any remaining proceeds will be used for other ongoing research and development, working capital and other general corporate purposes. Our expected use of proceeds from the sale of the securities offered hereby represents our current intentions based on our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds to be received from the sale of the securities offered hereby or the amounts that we will actually spend on the uses set forth above.

Pending the use of the net proceeds, we may invest the proceeds in interest-bearing, investment-grade securities, certificates of deposit, money market funds or government securities. When we offer and sell the securities to which this prospectus relates, the prospectus supplement related to such offering will set forth our intended use of the proceeds, if any, received from the sale of such securities.

SECURITIES WE MAY OFFER

This prospectus contains summary descriptions of the securities we may offer from time to time. These summary descriptions are not meant to be complete descriptions of each security. The particular terms of any security will be described in the applicable prospectus supplement.

DESCRIPTION OF SECURITIES

The following is a summary of the material terms of our capital stock, as well as other material terms of certain provisions of Delaware law, our second amended and restated certificate of incorporation (as amended from time to time, our "Certificate of Incorporation"), and our amended and restated bylaws (as amended from time to time, our "Bylaws"). This summary does not purport to be complete and is qualified in its entirety by the provisions of our Certificate of Incorporation and our Bylaws. For more information on how you can obtain our Certificate of Incorporation and our Bylaws, see the heading "Where You Can Find More Information."

Our authorized capital stock consists of 400,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share, of which 1,086,341 shares have been designated as Series A Non-Voting Convertible Preferred Stock, $0.0001 par value per share ("Series A Preferred Stock"), and 271,625 shares have been designated as Series B Non-Voting Convertible Preferred Stock, $0.0001 par value per share ("Series B Preferred Stock").

As of February 26, 2025, there were 60,257,023 shares of our common stock, 346,045 shares of Series A Preferred Stock and 16,667 shares of Series B Preferred Stock outstanding.

Common Stock

Our Certificate of Incorporation authorizes the issuance of up to 400,000,000 shares of common stock. All outstanding shares of common stock are validly issued, fully paid and nonassessable.

Dividend rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Voting rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our Certificate of Incorporation. Accordingly, pursuant to our Certificate of Incorporation, holders of a majority of the shares of our common stock are able to elect all of our directors. Our Certificate of Incorporation establishes a classified board of directors, divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

No preemptive or similar rights

Our common stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to receive liquidation distributions

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

Under the terms of our Certificate of Incorporation, our board of directors is authorized, subject to limitations prescribed by Delaware law, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences

and rights of the shares of each series and any of their qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Subject to any certificates of designation, our board of directors can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our 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 delaying, deferring or preventing a change in control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock.

Anti-Takeover Provisions

The provisions of Delaware law, our Certificate of Incorporation and our Bylaws could have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware law

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion 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 upon consummation of the transaction, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by 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
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a “business combination” to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Certificate of Incorporation and Bylaw Provisions

Our Certificate of Incorporation and our Bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our company, including the following:

- Board of Directors vacancies. Our Certificate of Incorporation and Bylaws authorize our board of directors to fill vacant directorships, including newly created seats unless the board of directors determines that any such vacancies shall be filled by the stockholders. In addition, the number of directors constituting our board of directors is permitted to be set only 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 but promotes continuity of management.

- Classified board. Our Certificate of Incorporation provides that our board is classified into three classes of directors, each with staggered three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.

- Stockholder action; special meetings of stockholders. Our Certificate of Incorporation and Bylaws provide that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our Bylaws or remove directors without holding a meeting of our stockholders called in accordance with our Bylaws. Further, our Certificate of Incorporation and Bylaws provide that special meetings of our stockholders may be called only by a majority of our entire board of directors, the chairperson of our board of directors, our Chief Executive Officer or our President, thus prohibiting a stockholder from calling a special meeting. These provisions might 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 provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our Bylaws also specify certain requirements regarding the form and content of a stockholder’s 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 might 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 our company.

- No cumulative voting. The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation’s certificate of incorporation provides otherwise. Our Certificate of Incorporation and Bylaws do not provide for cumulative voting.

- Directors removed only for cause. Our Certificate of Incorporation provides that stockholders may remove directors only for cause.

- Amendment of charter provisions. Any amendment of the above provisions in our Certificate of Incorporation requires approval by holders of at least two-thirds of our outstanding common stock,

provided that if two-thirds of our entire board of directors approves such an amendment, then only the approval of a majority of holders is required.

- Issuance of preferred stock. Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock enables our board of directors to render more difficult or to discourage an attempt to obtain control of us by merger, tender offer, proxy contest or other means.
- Choice of forum. Our Certificate of Incorporation and Bylaws provide that the Court of Chancery of the State of Delaware is the sole and exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our Certificate of Incorporation or our Bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. In addition, our Bylaws also provide that the federal district courts of the United States is the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. These choice of forum provisions will not apply to claims brought to enforce a duty or liability created by the Exchange Act.
- Series A Preferred Stock veto right. Pursuant to our Certificate of Designation of Preferences, Rights and Limitations of Series A Non-Voting Convertible Preferred Stock (the "Series A Certificate of Designation"), we may not, without the affirmative vote of the holders of a majority of the then outstanding shares of our Series A Preferred Stock, while at least 30% of the originally issued Series A Preferred Stock remains issued and outstanding, consummate any Fundamental Transaction (as defined in the Series A Certificate of Designation) or any merger, consolidation, stock sale or other business combination in which our stockholders immediately before such transaction do not hold at least a majority of our capital stock immediately after such transaction.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock and preferred stock is Equiniti Trust Company, LLC. The transfer agent's address is 6201 15th Avenue, Brooklyn, New York 11219, and its telephone number is (800) 937-5449.

Exchange Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol "SYRE."

Debt Securities

The paragraphs below describe the general terms and provisions of the debt securities we may issue. When we offer to sell a particular series of debt securities, we will describe the specific terms of the securities in a supplement to this prospectus, including any additional covenants or changes to existing covenants relating to such series. The prospectus supplement also will indicate whether the general terms and provisions described in this prospectus apply to a particular series of debt securities. You should read the actual indenture if you do not fully understand a term or the way we use it in this prospectus.

If we issue debt securities at a discount from their principal amount, then, for purposes of calculating the aggregate initial offering price of the offered securities issued under this prospectus, we will include only the initial offering price of the debt securities and not the principal amount of the debt securities.

We have summarized below the material provisions of the indenture, or indicated which material provisions will be described in the related prospectus supplement. The prospectus supplement relating to any particular securities offered will describe the specific terms of the securities, which may be in addition to or different from the general terms summarized in this prospectus. We have included the form of the indenture as an exhibit to our registration statement of which this prospectus is a part, and it is incorporated into this prospectus by reference. Because the summary in this prospectus and in any prospectus supplement does not contain all of the information

that you may find useful, you should read the documents relating to the securities that are described in this prospectus or in any applicable prospectus supplement. Please read “Where You Can Find More Information” in this prospectus to find out how you can obtain a copy of those documents. References below to an “indenture” are references to the indenture, as supplemented, under which a particular series of debt securities is issued. As used under this caption, the term “debt securities” includes the debt securities being offered by this prospectus and all other debt securities issued by us under the indenture.

General

The indenture:

- does not limit the amount of debt securities that we may issue;
- allows us to issue debt securities in one or more series;
- does not require us to issue all of the debt securities of a series at the same time; and
- allows us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series.

The prospectus supplement for each offering of debt securities will provide the following terms, where applicable:

- the title of the debt securities and whether they are senior, senior subordinated or subordinated debt securities;
- the aggregate principal amount of the debt securities being offered and any limit on their aggregate principal amount, and, if the series is to be issued at a discount from its face amount, the method of computing the accretion of such discount;
- the price at which the debt securities will be issued, expressed as a percentage of the principal and, if other than the full principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or, if applicable, the portion of the principal amount of such debt securities that is convertible into common stock or preferred stock or the method by which any such portion shall be determined;
- if convertible, the terms on which such debt securities are convertible, including the initial conversion price or rate or the method of calculation, how and when the conversion price or exchange ratio may be adjusted, whether conversion or exchange is mandatory, at the option of the holder or at our option, the conversion or exchange period, and any other provision in relation thereto, and any applicable limitations on the ownership or transferability of common stock or preferred stock received on conversion;
- the date or dates, or the method for determining the date or dates, on which the principal of the debt securities will be payable;
- the fixed or variable interest rate or rates of the debt securities, or the method by which the interest rate or rates is determined;
- the date or dates, or the method for determining the date or dates, from which interest will accrue;
- the dates on which interest will be payable;
- the record dates for interest payment dates, or the method by which we will determine those dates;
- the persons to whom interest will be payable;
- the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;

- any collateral securing the performance of our obligations under the debt securities;
- the place or places where the principal of, premium, if any, and interest on, the debt securities will be payable;
- where the debt securities may be surrendered for registration of transfer or conversion or exchange;
- where notices or demands to or upon us in respect of the debt securities and the applicable indenture may be served;
- any provisions regarding our right to redeem or purchase debt securities or the right of holders to require us to redeem or purchase debt securities;
- any right or obligation we have to redeem, repay or purchase the debt securities pursuant to any sinking fund or analogous provision;
- the currency or currencies (including any composite currency) in which the debt securities are denominated and payable if other than United States dollars, and the currency or currencies (including any composite currency) in which principal, premium, if any, and interest, if any, will be payable, and if such payments may be made in a currency other than that in which the debt securities are denominated, the manner for determining such payments, including the time and manner of determining the exchange rate between the currency in which such securities are denominated and the currency in which such securities or any of them may be paid, and any additions to, modifications of or deletions from the terms of the debt securities to provide for or to facilitate the issuance of debt securities denominated or payable in a currency other than U.S. dollars;
- whether the amount of payments of principal of, premium, if any, or interest on, the debt securities may be determined according to an index, formula or other method and how such amounts will be determined;
- whether the debt securities will be in registered form, bearer form or both, and the terms of these forms;
- whether the debt securities will be issued in whole or in part in the form of a global security and, if applicable, the identity of the depositary for such global security;
- any provision for electronic issuance of the debt securities or issuance of the debt securities in uncertificated form;
- whether and upon what terms the debt securities of such series may be defeased or discharged, if different from the provisions set forth in the indenture for the series to which the supplemental indenture or authorizing resolution relates;
- any provisions granting special rights to holders of securities upon the occurrence of such events as specified in the applicable prospectus supplement;
- any deletions from, modifications of, or additions to our events of default or covenants or other provisions set forth in the indenture for the series to which the supplemental indenture or authorizing resolution relates; and
- any other material terms of the debt securities, which may be different from the terms set forth in this prospectus.

We may issue debt securities at a discount below their principal amount and provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity of the debt securities. We refer to any such debt securities throughout this prospectus as “original issue discount securities.” The applicable prospectus supplement will describe the United States federal income tax consequences and other relevant considerations applicable to original issue discount securities.

Neither the DGCL nor our governing instruments define the term "substantially all" as it relates to the sale of assets. Additionally, Delaware cases interpreting the term "substantially all" rely upon the facts and circumstances of each particular case. Consequently, to determine whether a sale of "substantially all" of our assets has occurred, a holder of debt securities must review the financial and other information that we have disclosed to the public.

The applicable prospectus supplement will also describe any material covenants to which a series of debt securities will be subject and the applicability of those covenants to any of our subsidiaries to be restricted thereby, which are referred to herein as "restricted subsidiaries." The applicable prospectus supplement will also describe provisions for restricted subsidiaries to cease to be restricted by those covenants.

Events of Default

Unless the applicable prospectus supplement states otherwise, when we refer to "events of default" as defined in the indentures with respect to any series of debt securities, we mean:

- our failure to pay interest on any debt security of such series when the same becomes due and payable and the continuance of any such failure for a period of 30 days;
- our failure to pay the principal or premium of any debt security of such series when the same becomes due and payable at maturity, upon acceleration, redemption or otherwise;
- our failure or the failure of any restricted subsidiary to comply with any of its agreements or covenants in, or provisions of, the debt securities of such series or the indenture (as they relate thereto) and such failure continues for a period of 60 days after our receipt of notice of the default from the trustee or from the holders of at least 25 percent in aggregate principal amount of the then outstanding debt securities of that series (except in the case of a default with respect to the provisions of the indenture regarding the consolidation, merger, sale, lease, conveyance or other disposition of all or substantially all of the assets of us (or any other provision specified in the applicable supplemental indenture or authorizing resolution), which will constitute an event of default with notice but without passage of time); or
- certain events of bankruptcy, insolvency or reorganization occur with respect to Spyre or any restricted subsidiary of Spyre that is a significant subsidiary (as defined in the indenture).

If an event of default occurs and is continuing with respect to debt securities of any series outstanding, then the trustee or the holders of 25% or more in principal amount of the outstanding debt securities of that series will have the right to declare the principal amount of all the debt securities of that series to be due and payable immediately. However, the holders of at least a majority in principal amount of outstanding debt securities of such series may rescind and annul such declaration and its consequences, except an acceleration due to nonpayment of principal or interest on such series, if the rescission would not conflict with any judgment or decree and if all existing events of default with respect to such series have been cured or waived.

The indenture also provides that the holders of at least a majority in principal amount of the outstanding debt securities of any series, by notice to the trustee, may, on behalf of all holders, waive any existing default and its consequences with respect to such series of debt securities, other than any event of default in payment of principal or interest.

The indenture will require the trustee to give notice to the holders of debt securities within 90 days after the trustee obtains knowledge of a default that has occurred and is continuing. However, the trustee may withhold notice to the holders of any series of debt securities of any default, except a default in payment of principal or interest, if any, with respect to such series of debt securities, if the trustee considers it in the interest of the holders of such series of debt securities to do so.

The holders of a majority of the outstanding principal amount of the debt securities of any series will have the right to direct the time, method and place of conducting any proceedings for any remedy available to the trustee with respect to such series, subject to limitations specified in the indenture.

Amendment, Supplement and Waiver

Without notice to or the consent of any holder, we and the trustee may amend or supplement the indenture or the debt securities of a series:

- to cure any ambiguity, omission, defect or inconsistency;
- to comply with the provisions of the indenture regarding the consolidation, merger, sale, lease, conveyance or other disposition of all or substantially all of our assets;
- to provide that specific provisions of the indenture shall not apply to a series of debt securities not previously issued or to make a change to specific provisions of the indenture that only applies to any series of debt securities not previously issued or to additional debt securities of a series not previously issued;
- to create a series and establish its terms;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to release a guarantor in respect of any series which, in accordance with the terms of the indenture applicable to such series, ceases to be liable in respect of its guarantee;
- to add a guarantor subsidiary in respect of any series of debt securities;
- to secure any series of debt securities;
- to add to the covenants of Spyre for the benefit of the holders or surrender any right or power conferred upon Spyre;
- to appoint a successor trustee with respect to the securities;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”);
- to make any change that does not adversely affect the rights of holders; or
- to conform the provisions of the indenture to the final offering document in respect of any series of debt securities.

The indenture will provide that we and the trustee may amend or supplement any provision of the debt securities of a series or of the indenture relating to such series with the written consent of the holders of at least a majority in principal amount of the outstanding debt securities of such series. However, without the consent of each holder of a debt security the terms of which are directly amended, supplemented or waived, an amendment, supplement or waiver may not:

- reduce the amount of debt securities of such series whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest, including defaulted interest;
- reduce the principal of or extend the fixed maturity of any debt security or alter the provisions with respect to redemptions or mandatory offers to repurchase debt securities of a series in a manner adverse to holders;
- make any change that adversely affects any right of a holder to convert or exchange any debt security into or for shares of our common stock or other securities, cash or other property in accordance with the terms of such security;
- modify the ranking or priority of the debt securities of the relevant series;

- release any guarantor of any series from any of its obligations under its guarantee or the indenture otherwise than in accordance with the terms of the indenture;
- make any change to any provision of the indenture relating to the waiver of existing defaults, the rights of holders to receive payment of principal and interest on the debt securities, or to the provisions regarding amending or supplementing the indenture or the debt securities of a particular series with the written consent of the holders of such series, except to increase the percentage required for modification or waiver or to provide for consent of each affected holder of debt securities of such series;
- waive a continuing default or event of default in the payment of principal of or interest on the debt securities; or
- make any debt security payable at a place or in money other than that stated in the debt security, or impair the right of any holder of a debt security to bring suit as permitted by the indenture.

The holders of a majority in aggregate principal amount of the outstanding debt securities of such series may, on behalf of all holders of debt securities of that series, waive any existing default under, or compliance with, any provision of the debt securities of a particular series or of the indenture relating to a particular series of debt securities, other than any event of default in payment of interest or principal.

Defeasance

The indenture will permit us to terminate all our respective obligations under the indenture as they relate to any particular series of debt securities, other than the obligation to pay interest, if any, on and the principal of the debt securities of such series and certain other obligations, at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money or government obligations in an amount sufficient to pay principal of and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right 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 otherwise.

The indenture will also permit us to terminate all of our respective obligations under the indenture as they relate to any particular series of debt securities, including the obligations to pay interest, if any, on and the principal of the debt securities of such series and certain other obligations, at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money or government obligations in an amount sufficient to pay principal and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that (A) we have received from, or there has been published by, the Internal Revenue Service a ruling, or (B) since the date such series of debt securities were originally issued, 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 state that, holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right 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 otherwise.

In addition, the indenture will permit us to terminate substantially all our respective obligations under the indenture as they relate to a particular series of debt securities by depositing with the trustee money or government obligations sufficient to pay all principal and interest on such series at its maturity or redemption date if the debt securities of such series will become due and payable at maturity within one year or are to be called for redemption within one year of the deposit.

Transfer and Exchange

A holder will be able to transfer or exchange debt securities only in accordance with the indenture. The registrar may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and to pay any taxes and fees required by law or permitted by the indenture.

Concerning the Trustee

The indenture will contain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in specified cases or to realize on property received in respect of any such claim as security or otherwise. The indenture will permit the trustee to engage in other transactions; however, if it acquires any conflicting interest, it must eliminate such conflict or resign.

The indenture will provide that in case an event of default occurs and is not cured, the trustee will be required, in the exercise of its power, to use the degree of care of a prudent person in similar circumstances in the conduct of such person’s own affairs. The trustee shall be under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders pursuant to the indenture, unless such holders shall have offered to the trustee security or indemnity satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

No Recourse Against Others

The indenture will provide that there is no recourse under any obligation, covenant or agreement in the applicable indenture or with respect to any debt security against any of our or our successor’s past, present or future stockholders, employees, officers or directors.

Governing Law

The laws of the State of New York will govern the indenture and the debt securities.

Warrants

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series, from time to time. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from those securities.

If we issue warrants, they will be evidenced by warrant agreements or warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. We urge you to read the prospectus supplement related to any series of warrants we may offer, as well as the complete warrant agreement and warrant certificate that contain the terms of the warrants. If we issue warrants, forms of warrant agreements and warrant certificates relating to warrants for the purchase of common stock, preferred stock and debt securities will be incorporated by reference into the registration statement of which this prospectus is a part from reports we would subsequently file with the SEC.

Units

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the

registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain United States federal income tax considerations applicable to the units; and
- any other terms of the units and their constituent securities.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

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

We may also sell equity securities covered by this registration statement in an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of the Nasdaq Global Select Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker otherwise than on the Nasdaq Global Select Market or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us 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. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to offerings pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than our shares of common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on the Nasdaq Global Select Market may engage in passive market making transactions in the securities on the Nasdaq Global Select Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Certain legal matters, including the legality of the securities offered, will be passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California. 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 financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control Over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report (which contains an adverse opinion on the effectiveness of the Company's internal control over financial reporting) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC, and we have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information included in the registration statement, including its exhibits and schedules. For further information about us and the securities described in this prospectus, you should refer to the registration statement, its exhibits and schedules and our reports, proxies, information statements and other information filed with the SEC.

Our filings are available to the public on the Internet, through a database maintained by the SEC at *www.sec.gov*. We also maintain a website at *www.spyre.com*. We have included our website address for the information of prospective investors and do not intend it to be an active link to our website. Information contained on our website does not constitute a part of this prospectus or any applicable prospectus supplement (or any document incorporated by reference herein or therein).

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is an important part of this prospectus, and information that we file after the date hereof with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below (in each case, other than portions of documents not deemed to be filed):

- Annual Report on Form 10-K for the year ended December 31, 2024 filed with the SEC on February 27, 2025;
- Current Report on Form 8-K filed with the SEC on January 13, 2025 (Item 8.01 only); and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on March 28, 2016, including any amendments or reports filed for the purpose of updating such description.

Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded.

This prospectus incorporates by reference the documents listed above and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed, except that we are not incorporating by reference any information furnished (and not filed) with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K (unless expressly provided to the contrary).

You may request a copy of these filings (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein), at no cost, by contacting us, either orally or in writing, at the following:

Spyre Therapeutics, Inc.
221 Crescent Street
Building 23, Suite 105
Waltham, Massachusetts 02453
(617) 651-5940

Information about us is also available at our website at *http://www.spyre.com*. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. However, the information on our website is not a part of this prospectus and is not incorporated by reference into this prospectus. We have authorized no one to provide you with any information that differs from that contained in this prospectus. Accordingly, we take no responsibility for any other information that others may give you. You should not assume that the information in this prospectus is accurate as of any date other than the date of the front cover of this prospectus.

The information in this prospectus supplement is not complete and may be changed. We may not sell these securities or accept an offer to buy these securities 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 offers to buy these securities in any jurisdiction where such offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 27, 2025

PROSPECTUS SUPPLEMENT (To Prospectus dated , 2025)

$179,059,869

Common Stock

We have entered into a Sales Agreement (the "Sales Agreement") with TD Securities (USA) LLC, or TD Cowen, relating to shares of our common stock offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to $200,000,000 from time to time through or to TD Cowen acting as our agent, of which $20,940,131 of shares have been previously sold, and $179,059,869 of shares remain to be sold and are offered by this prospectus supplement and the accompanying prospectus.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "SYRE." On February 26, 2025, the last reported sale price of our common stock was $19.00 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made in sales deemed to be "at the market offerings" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the "Securities Act"). TD Cowen is not required to sell any specific amount of securities but will act as our sales agent using commercially reasonable efforts, consistent with its normal trading and sales practices, on mutually agreed terms between TD Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to TD Cowen for sales of common stock sold pursuant to the Sales Agreement will be an amount up to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement. In connection with the sale of our common stock on our behalf, TD Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of TD Cowen will be deemed to be underwriting commissions or discounts. Please see "Plan of Distribution" beginning on page S-9 for more information regarding compensation to be paid to TD Cowen pursuant to the Sales Agreement. We have also agreed to provide indemnification and contribution to TD Cowen with respect to certain liabilities, including liabilities under the Securities Act, or the Exchange Act of 1934, as amended.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption "Risk Factors" beginning on page S-4 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

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

TD Cowen

Prospectus Supplement dated , 2025

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement relates to the offering of up to $179,059,869 of shares of our common stock. Before buying any of the shares of common stock that we are offering, we urge you to carefully read this prospectus supplement, together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering. These documents contain important information that you should consider when making your investment decision. In general, when we refer only to the prospectus, we are referring to both the prospectus supplement and the accompanying prospectus combined.

This prospectus supplement describes the terms of this offering of shares of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the Securities and Exchange Commission (the "SEC") before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date-for example, a document incorporated by reference into this prospectus-the statement in the document having the later date modifies or supersedes the earlier statement.

We are responsible for the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and TD Cowen has not, authorized anyone to give you any other information, and neither we nor TD Cowen take any responsibility for any other information that others may give you. We are not, and TD Cowen is not, making offers to sell the securities in any jurisdiction in which an offer or solicitation is not authorized or permitted or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. The information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering speaks only as of the date of this document, unless the information specifically indicates that another date applies. Neither the delivery of this prospectus supplement, the accompanying prospectus or any free writing prospectus that we have authorized for use in connection with this offering, nor any sale of securities made under these documents, will, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus supplement, the accompanying prospectus or any free writing prospectus that we have authorized for use in connection with this offering, nor that the information contained or incorporated by reference is correct as of any time subsequent to the date of such information. You should assume that the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the date of the documents containing the information, unless the information specifically indicates that another date applies. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus supplement or the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the shares of common stock to which it relates, nor do this prospectus supplement and the accompanying prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus concerning our industry and the markets in which we operate, including market position and market opportunity, is based on information from our management's estimates, as well as from industry publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. However, assumptions and estimates of our future performance, and the future performance of our industry, are subject to numerous known and unknown risks and uncertainties, including those described under the heading "Risk Factors" beginning on page S-4 of this prospectus supplement and in the risk factors incorporated by reference into this prospectus supplement and the accompanying prospectus. These and other important factors could result in our estimates and assumptions being materially different from future results. You should read the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus completely and with the understanding that future results may be materially different and worse from what we expect. See the information included under the heading "Cautionary Note Concerning Forward-Looking Statements."

In this prospectus supplement, unless the context otherwise requires, the terms "Spyre," "Aeglea BioTherapeutics, Inc.," "Aeglea," the "Company," "we," "us," and "our" refer to Spyre Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries.

"Spyre" and all product candidate names are our common law trademarks. This prospectus supplement contains additional trade names, trademarks and service marks of other companies, which are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies. Solely for convenience, trademarks and trade names referred to in this prospectus supplement may appear without the ® or TM symbols.

All references to "our product candidates," "our programs" and "our pipeline" in this prospectus supplement refer to the research programs with respect to which we have signed a license agreement for, exercised the option to acquire intellectual property license rights to or have the option to acquire intellectual property license rights to pursuant to that certain antibody discovery and option agreement, dated May 25, 2023, and subsequently amended and restated on September 29, 2023 and May 14, 2024, by and among us, Paragon Therapeutics, Inc. and Parapyre Holding LLC.

Please be advised that on September 8, 2023, we effected a reverse stock split of our common stock at a ratio of 1-for-25 (the "Reverse Split"). Except as indicated otherwise, all share numbers related to our common stock disclosed in this prospectus supplement have been adjusted on a post-Reverse Split basis. In addition, on November 28, 2023, we changed our name from "Aeglea BioTherapeutics, Inc." to "Spyre Therapeutics, Inc."

CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus contains “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements involve a number of risks and uncertainties. We caution readers that any forward-looking statement is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statement. These statements are based on current expectations of future events.

All statements, other than statements of historical facts contained in this prospectus, including, without limitation, statements regarding: any future payouts under our contingent value rights issued in connection with our acquisition of the assets of Spyre Therapeutics, Inc. ("Pre-Merger Spyre") (the "Asset Acquisition"); our future results of operations and financial position; our business strategy, including our ability to develop best-in-class therapeutics for inflammatory bowel disease (IBD) or rheumatoid arthritis (RA) that meaningfully improve both efficacy and convenience compared to today's standard of care and our ability to develop first-in-class therapeutics for RA; our plans to expand the development of our product candidates, including SPY002, to indications beyond IBD and RA; the SPY001 Phase 1 trial final data readouts not being consistent with or being different than the interim Phase 1 results; the planned dosing regimen for SPY001 and our other product candidates, including the potential for a Q3M-Q6M dosing profile; the potential for increased or accelerated efficacy; the expected design and timing of the platform Phase 2 trial, including timing of each cohort and data readouts; potential alignment with regulatory authorities and anticipated regulatory submissions; expected timing for regulatory feedback; the length of time that we believe our existing cash resources will fund operations; estimated market sizes and potential growth opportunities; expected competitors and competing products; our nonclinical and clinical development activities, including clinical trial designs, submission of investigational new drug applications and foreign equivalents and further clinical evaluation of therapeutic combinations, and related regulatory feedback; the potential efficacy, tolerability, convenience, commercial viability and safety profile of our product candidates, including in combinations; the potential therapeutic benefits and economic value of our product candidates as monotherapies or in combinations and their extended half-life; use of net proceeds from our public offerings; the timing and results of nonclinical studies and clinical trials, including commencement of first-in-human and Phase 2 trials and timing of data readouts; the expected impact of macroeconomic conditions, including inflation, increasing interest rates and volatile market conditions, current or potential bank failures, as well as global events, including the ongoing military conflict in Ukraine, conflict between Israel and various other parties, geopolitical tensions between China and the United States on our operations, and the implementation of tariffs, sanctions, export or import controls, and other measures that restrict international trade by the United States, China or other governments, and the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates. Forward-looking statements generally relate to future events or our future financial or operating performance. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “predict,” “target,” “intend,” “could,” “would,” “should,” “project,” “plan,” “expect,” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all 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 statements we may make. Factors that might cause such a difference include the risks set forth under the caption “Risk Factors” in the prospectus and this prospectus supplement and in the documents incorporated by reference in the prospectus and this prospectus supplement. You should evaluate all forward-looking statements made in this prospectus in the context of these risks and uncertainties. We caution you that the risks, uncertainties and other factors referred to in this prospectus may not contain all of the risks, uncertainties and other factors that may affect our future results and operations.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this prospectus. While we believe that such information provides a reasonable basis for these statements, such information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or

review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements. This prospectus supplement also contains or incorporates by reference estimates, projections, and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained such industry, business, market, and other data from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data, and similar sources.

All subsequent written or oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events, except as may be required under applicable U.S. securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

PROSPECTUS SUPPLEMENT SUMMARY

The items in the following summary are described in more detail later in this prospectus supplement and the accompanying prospectus. This summary provides an overview of selected information and does not contain all of the information you should consider before buying our common stock. Therefore, you should read the entire prospectus supplement and the accompanying prospectus carefully, including the information in our filings with the SEC incorporated by reference herein, before deciding to invest in our common stock. Investors should carefully consider the information set forth under "Risk Factors" beginning on page S-4 of this prospectus supplement and page 5 of the accompanying prospectus and those risks identified in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q. In this prospectus supplement, unless the context otherwise requires, references to "Spyre," "Aeglea," "Aeglea BioTherapeutics, Inc.," the "Company," "we," "us," and "our" refer to Spyre Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries.

Overview

We are a clinical-stage biotechnology company utilizing potential best-in-class antibody engineering, dose optimization, and rational therapeutic combinations to target improved efficacy and convenience in the treatment of IBD and other immune-mediated diseases. Our pipeline includes extended half-life antibodies targeting α4β7, TL1A, and IL-23 in development as monotherapies and pair-wise combinations.

Corporate History and Information

We were formed as a Limited Liability Company ("LLC") in Delaware on December 16, 2013 under the name Aeglea BioTherapeutics Holdings, LLC and were converted from a Delaware LLC to a Delaware corporation on March 10, 2015. On June 22, 2023, we completed the Asset Acquisition and on November 27, 2023, we completed our corporate rebranding, changing our name to Spyre Therapeutics, Inc.

Our principal executive offices are located at 221 Crescent Street, Building 23, Suite 105, Waltham, MA 02453 and our telephone number is (617) 651-5940. Our website is *www.spyre.com*. The information on, or that can be accessed through, our website is not part of this prospectus and is not incorporated by reference herein. We have included our website address in this prospectus solely as an inactive textual reference.

THE OFFERING

Common stock offered by us pursuant to this prospectus supplement	Shares of our common stock having an aggregate offering price of up to $179,059,869.
Common stock to be outstanding immediately after this offering	Up to 69,681,226 shares of our common stock, based on 60,257,023 shares outstanding as of December 31, 2024, assuming sales of 9,424,203 shares of our common stock in this offering at a public offering price of $19.00 per share, which was the last reported sale price per share of our common stock on the Nasdaq Global Select Market on February 26, 2025. The actual number of shares of our common stock issued will vary depending on the sales price under this offering.
Plan of distribution	"At the market offering" that may be made from time to time through TD Cowen acting as our sales agent. See "Plan of Distribution" for additional information.
Use of proceeds	We intend to use the net proceeds of the offering to continue to advance our early-stage clinical programs and advance our preclinical pipeline through Investigational New Drug applications into clinical development. We also intend to use a portion of the net proceeds to further develop and support our general infrastructure. Finally, we may use a portion of the net proceeds to in-license, acquire, or invest in additional businesses, technologies, products, or assets, and to fund the development of such new acquired or in-licensed products and technologies. Any remaining proceeds will be used for other ongoing research and development, working capital and other general corporate purposes. See "Use of Proceeds" for additional information.
Risk factors	You should read and consider the information set forth under the heading "Risk Factors" in this prospectus supplement and in the accompanying prospectus, together with the risk factors and cautionary statements described in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q, incorporated by reference herein, before deciding to invest in shares of our common stock.
Nasdaq Global Select Market Symbol	"SYRE"

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 60,257,023 shares of common stock outstanding as of December 31, 2024, and after giving effect to the conversion of all of our outstanding shares of preferred stock into 14,508,480 shares of common stock without regard to any beneficial ownership limitations, but otherwise excludes:

- 9,253,158 shares of common stock issuable upon the exercise of outstanding stock options having a weighted-average exercise price of $15.08 per share;
- 115,398 shares of common stock issuable upon the vesting of restricted stock units outstanding;
- 4,047,971 shares of common stock reserved for issuance pursuant to future equity awards under our 2016 Equity Incentive Plan (the "2016 Plan"), as well as any future increases in the number of shares of our common stock reserved for future issuance under the 2016 Plan;
- 637,513 shares of common stock reserved for issuance pursuant to future equity awards under our 2018 Equity Inducement Plan (the "2018 Plan"), as well as any future increases in the number of shares of our common stock reserved for future issuance under the 2018 Plan;

- 416,592 shares of common stock reserved for future issuance under our 2016 Employee Stock Purchase Plan (the “2016 ESPP”), as well as any future increases in the number of shares of our common stock reserved for future issuance under the 2016 ESPP; and
- 1,532,591 shares of common stock issuable upon the exercise of outstanding warrants having a weighted-average exercise price of $22.49 per share.

As of December 31, 2024, 346,045 shares of Series A Preferred Stock and 16,667 shares of Series B Preferred Stock were issued and outstanding.

Except as indicated otherwise, all share numbers related to our Common Stock disclosed in this prospectus have been adjusted on a post-Reverse Split basis.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding stock options and warrants or vesting of restricted stock units as of December 31, 2024.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus supplement or incorporated by reference in this prospectus supplement, including the risks and uncertainties discussed under “Risk Factors” in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q, which are incorporated by reference herein in their entirety. If any of the risks incorporated by reference herein or set forth below occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

Risks Relating to this Offering

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If we or our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the market price of our common stock could decline. Based upon the number of shares of common stock outstanding as of December 31, 2024 and assuming sales of 9,424,203 shares of our common stock in this offering at a public offering price of $19.00 per share, which was the last reported sale price per share of our common stock on the Nasdaq Global Select Market on February 26, 2025, as a result of this offering we would have outstanding a total of approximately 69,681,226 shares of common stock, all of which would be freely tradable (subject to the restrictions in Rule 144 for shares of common stock held by our affiliates). Any shares sold in this offering will be freely tradable, without restriction, in the public market.

We have broad discretion as to the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds to us from this offering, including to use them for any of the purposes described in the section entitled “Use of Proceeds,” and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds to us from this offering, their ultimate use may vary from their currently intended use. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds to us from this offering in interest-bearing, investment-grade securities, certificates of deposit or government securities. These investments may not yield a favorable return to our stockholders.

If you purchase shares of our common stock in this offering, you may incur immediate and substantial dilution.

Some or all of the public offering price per share in this offering may exceed the as-adjusted net tangible book value per share of our outstanding common stock. After giving effect to an assumed sale of shares of common stock in the aggregate amount of $179.0 million at an assumed public offering price of $19.00 per share, which was the last reported sale price per share of our common stock on the Nasdaq Global Select Market on February 26, 2025, and after deducting the commissions and estimated offering expenses payable by us, you would incur immediate and substantial dilution in the amount of $10.79 per share.

This dilution is due to the substantially lower price paid by our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering, and the exercise of stock options granted to our employees. In addition, the vesting of the restricted stock units, the exercise of any outstanding options to purchase shares of our common stock or warrants and issuances of our equity in future equity offerings would result in additional dilution. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. See “Dilution” for additional information.

It is not possible to predict the aggregate proceeds resulting from sales made under the Sales Agreement.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver an issuance notice to TD Cowen at any time throughout the term of the Sales Agreement. The number of shares that are sold through TD Cowen after delivering an issuance notice, if any, will fluctuate based on a number of factors, including the market price of shares of our common stock during the sales period, the limits we set with TD Cowen in any applicable issuance notice and the demand for shares of our common stock during the sales period. Because the price per share of each share of common stock sold pursuant to the Sales Agreement will fluctuate during this offering, it is not currently possible to predict the number of shares of common stock that will be sold or the aggregate proceeds we will raise in connection with those sales under the Sales Agreement, and we may not sell any shares of common stock.

If securities or industry analysts either do not publish research about us or publish inaccurate or unfavorable research about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the trading price or trading volume of our common stock could decline.

The trading market for our common stock will be influenced in part by the research and reports that securities or industry analysts may publish about us, our business, our market, or our competitors. If one or more of these analysts initiate research with an unfavorable rating or downgrade our common stock, provide a more favorable recommendation about our competitors or publish inaccurate or unfavorable research about our business, our common stock price would likely decline. If any analyst who may cover us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the trading price or trading volume of our common stock to decline.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $179,059,869 from time to time. Because there is no minimum offering amount required to be sold in connection with this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the Sales Agreement with TD Cowen as a source of financing.

We intend to use the net proceeds of the offering to continue to advance our early-stage clinical programs and advance our preclinical pipeline through Investigational New Drug applications into clinical development. We also intend to use a portion of the net proceeds to further develop and support our general infrastructure. Finally, we may use a portion of the net proceeds to in-license, acquire, or invest in additional businesses, technologies, products, or assets, and to fund the development of such new acquired or in-licensed products and technologies. Any remaining proceeds will be used for other ongoing research and development, working capital and other general corporate purposes.

Pending the use of the proceeds to us from this offering, we intend to invest these proceeds in interest-bearing, investment-grade securities, certificates of deposit, money market funds or government securities.

DILUTION

Dilution represents the difference between the amount per share of common stock paid by purchasers of shares of common stock in this offering and the as-adjusted net tangible book value per share of our common stock immediately after this offering. The data in this section are derived from our balance sheet as of December 31, 2024. Net tangible book value per share of common stock is equal to our total tangible assets less the amount of our total liabilities, divided by the sum of the number of shares of common stock outstanding as of December 31, 2024, excluding shares of common stock underlying outstanding options, unvested restricted stock units and warrants. Our net tangible book value as of December 31, 2024, was approximately $517.8 million, or $8.59 per share of common stock. For purposes of this "Dilution" section, except as otherwise noted, all subsequent share and per share information assumes the conversion of all outstanding preferred stock (convertible on a 40 to 1 basis) without regard to any beneficial ownership limitations. Assuming such conversion, our pro forma net tangible book value as of December 31, 2024 was $517.8 million, or $6.93 per share of common stock.

We present dilution on a pro forma as-adjusted basis to give effect to (i) the assumed conversion of all outstanding shares of our preferred stock as described above and (ii) our receipt of the estimated net proceeds from the assumed sale of shares of common stock in the aggregate amount of $179,059,869 at an assumed public offering price of $19.00 per share, which was the last reported sale price per share of our common stock on the Nasdaq Global Select Market on February 26, 2025, and after deducting the commissions and estimated offering expenses payable by us. On a pro forma as-adjusted basis, our as-adjusted net tangible book value as of December 31, 2024, would have been $691.2 million, or $8.21 per share of common stock. This represents an immediate increase in pro forma as-adjusted net tangible book value to existing stockholders of $1.28 per share of common stock and immediate dilution in pro forma as-adjusted net tangible book value to purchasers of shares of common stock in this offering of $10.79 per share of common stock. The following table illustrates this dilution per share of common stock:

Assumed public offering price per share of common stock		$ 19.00
Net tangible book value per share of common stock as of December 31, 2024 (excluding the conversion of preferred stock)	$ 8.59	
Pro forma net tangible book value per share as of December 31, 2024, giving effect to the conversion of preferred stock without regard to any beneficial ownership limitation	$ 6.93	
Increase in pro forma net tangible book value per share of common stock attributable to new investors	$ 1.28	
Pro forma as-adjusted net tangible book value per share after this offering		$ 8.21
Dilution per share of common stock to investors participating in this offering		$ 10.79

The table above assumes for illustrative purposes that an aggregate of 9,424,203 shares of our common stock are sold at a price of $19.00 per share, the last reported sale price of our common stock on the Nasdaq Global Select Market on February 26, 2025. The shares of common stock sold in this offering, if any, will be sold from time to time at various prices. An increase of $1.00 per share in the assumed price at which the shares of common stock are sold would increase the dilution in pro forma net tangible book value per share to purchasers of shares of common stock in this offering to $11.74 per share, after deducting the commissions and estimated offering expenses payable by us. A decrease of $1.00 per share in the assumed price at which the shares of common stock are sold would decrease the dilution in pro forma net tangible book value per share to purchasers of shares of common stock in this offering to $9.84 per share, after deducting the commissions and estimated offering expenses payable by us. This information is supplied for illustrative purposes only.

The foregoing excludes, in each case, as of December 31, 2024:

- 9,253,158 shares of common stock issuable upon the exercise of outstanding stock options having a weighted-average exercise price of $15.08 per share;
- 115,398 shares of common stock issuable upon the vesting of restricted stock units outstanding;

- 4,047,971 shares of common stock reserved for issuance pursuant to future equity awards under the 2016 Plan, as well as any future increases in the number of shares of our common stock reserved for future issuance under this plan;
- 637,513 shares of common stock reserved for issuance pursuant to future equity awards under the 2018 Plan, as well as any future increases in the number of shares of our common stock reserved for future issuance under the 2018 Plan;
- 416,592 shares of common stock reserved for future issuance under the 2016 ESPP, as well as any future increases in the number of shares of our common stock reserved for future issuance under the 2016 ESPP; and
- 1,532,591 shares of common stock issuable upon the exercise of outstanding warrants having a weighted-average exercise price of $22.49 per share.

Furthermore, we may choose to raise additional capital through the sale of equity or convertible debt securities due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. New investors may experience further dilution if any of our outstanding options are exercised, new options are issued and exercised under our equity incentive plans or we issue additional shares of common stock, other equity securities or convertible debt securities in the future.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with TD Cowen, dated September 6, 2024, under which we may issue and sell from time to time up to $200,000,000 of our common stock, of which $179,059,869 is being offered by this prospectus supplement and the accompanying prospectus, through or to TD Cowen as our sales agent or principal. Sales of our common stock, if any, will be made at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act. Sales pursuant to the sales agreement may be made through an affiliate of TD Cowen.

TD Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and TD Cowen. We will designate the maximum amount of common stock to be sold through TD Cowen on a daily basis or otherwise determine such maximum amount together with TD Cowen. Subject to the terms and conditions of the sales agreement, TD Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct TD Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. TD Cowen or we may suspend the offering of our common stock being made through TD Cowen under the sales agreement upon proper notice to the other party. TD Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party's sole discretion at any time.

The aggregate compensation payable to TD Cowen as sales agent equals up to 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. Under the sales agreement, we have also agreed to reimburse TD Cowen up to $75,000 of TD Cowen's actual outside legal expenses incurred by TD Cowen in connection with this offering. In accordance with FINRA Rule 5110 these reimbursed fees and expenses are deemed sales compensation in connection with this offering. We estimate that the total expenses of the offering payable by us, excluding commissions payable to TD Cowen under the sales agreement, will be approximately $300,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

TD Cowen will provide written confirmation to us following the close of trading on the Nasdaq Global Select Market on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through TD Cowen under the sales agreement, the average price per share sold and the gross proceeds to us in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise, on the first business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, TD Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation paid to TD Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to TD Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, TD Cowen will not engage in any transactions that stabilizes our common stock.

Our common stock is listed on the Nasdaq Global Select Market and trades under the symbol "SYRE." The transfer agent of our common stock is Equiniti Trust Company, LLC.

TD Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees.

LEGAL MATTERS

The validity of the common stock being offered in this prospectus supplement will be passed on by Gibson, Dunn & Crutcher LLP, San Francisco, California. Covington & Burling LLP, New York, New York will act as counsel to TD Cowen in connection with this offering.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control Over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report (which contains an adverse opinion on the effectiveness of the Company's internal control over financial reporting) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act, and in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. The SEC maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is *www.sec.gov*. Statements contained in this prospectus supplement as to the contents of any contract or other document are not necessarily complete, and in each instance, we refer you to the copy of the contract or document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference. We also maintain a website at *www.spyre.com*. We have included our website address for the information of prospective investors and do not intend it to be an active link to our website. Information contained on our website does not constitute a part of this prospectus supplement (or any document incorporated by reference herein or therein).

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file after the date hereof with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below (in each case, other than portions of documents not deemed to be filed):

- Annual Report on Form 10-K for the year ended December 31, 2024 filed with the SEC on February 27, 2025;
- Current Report on Form 8-K filed with the SEC on January 13, 2025 (Item 8.01 only); and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on March 28, 2016, including any amendments or reports filed for the purpose of updating such description.

Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded.

This prospectus supplement incorporates by reference the documents listed above and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed, except that we are not incorporating by reference any information furnished (and not filed) with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K (unless expressly provided to the contrary).

You may request a copy of these filings (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein), at no cost, by contacting us, either orally or in writing, at the following:

Spyre Therapeutics, Inc.
221 Crescent Street
Building 23, Suite 105
Waltham, Massachusetts 02453
(617) 651-5940

Information about us is also available at our website at *http://www.spyre.com*. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. However, the information on our website is not a part of this prospectus supplement and is not incorporated by reference into this prospectus supplement. We have authorized no one to provide you with any information that differs from that contained in this prospectus supplement. Accordingly, we take no responsibility for any other information that others may give you. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date of the front cover of this prospectus supplement.

Up to $179,059,869

Common Stock

PROSPECTUS SUPPLEMENT

TD Cowen

, 2025

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth an estimate of the fees and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the issuance and distribution of the securities being registered. All amounts are estimates except for the SEC registration fee.

	Amount
SEC registration fee	65,844[(1)]
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous fees and expenses	*
Total	*

* These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

(1) The registrant is filing this registration statement to replace its existing registration statement (No. 333-281975). A portion of the filing fee associated with this registration statement was carried forward from our prior registration statement, and an additional filing fee is due only in connection with the $430,071,875 maximum aggregate offering price of new securities registered upon the effectiveness of this registration statement. Pursuant to Rule 415(a)(6) under the Securities Act, the offering of unsold securities with a maximum aggregate offering price of $69,928,125 under the prior registration statement will be deemed terminated as of the date of effectiveness of this registration statement. Please see the registration fee table contained in Exhibit 107 to this registration statement for more information.

Item 15. Indemnification of Directors and Officers

Section 145 of the DGCL authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the DGCL are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act.

As permitted by the DGCL, the Company's Certificate of Incorporation contains provisions that eliminate the personal liability of its directors and officers for monetary damages for any breach of fiduciary duties as a director or officer, except liability for the following:

- any breach of the director's or officer's duty of loyalty to the Company or its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL (regarding unlawful dividends and stock purchases); or
- any transaction from which the director or officer derived an improper personal benefit.

As permitted by the DGCL, the Company's Bylaws provide that:

- the Company is required to indemnify its directors and executive officers to the fullest extent permitted by the DGCL, subject to very limited exceptions;
- the Company may indemnify its other employees and agents as set forth in the DGCL;
- the Company is required to advance expenses, as incurred, to its directors and executive officers in connection with a legal proceeding to the fullest extent permitted by the DGCL, subject to very limited exceptions; and
- the rights conferred in the Bylaws are not exclusive.

The Company has entered, and intends to continue to enter, into separate indemnification agreements with its directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in the Company's Certificate of Incorporation and Bylaws and to provide additional procedural protections. At present, there is no pending litigation or proceeding involving a director or executive officer of the Company regarding which indemnification is sought.

The indemnification provisions in the Company's Certificate of Incorporation, Bylaws and the indemnification agreements entered into or to be entered into between the Company and each of its directors and executive officers may be sufficiently broad to permit indemnification of the Company's directors and executive officers for liabilities arising under the Securities Act.

The Company currently carries liability insurance for its directors and officers. Two of the Company's directors, Peter Harwin and Tomas Kiselak, are also indemnified by their employer with regard to their service on the Company's board of directors.

Item 16. Exhibits

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

Exhibit No.	Description
1.1*	Form of Underwriting Agreement.
1.2	Sales Agreement, dated September 6, 2024, between Spyre Therapeutics, Inc. and TD Securities (USA) LLC.
2.1	Agreement and Plan of Merger, dated June 22, 2023, by and among Aeglea BioTherapeutics, Inc. Aspen Merger Sub I, Inc., Sequoia Merger Sub II, LLC and Spyre Therapeutics, Inc. (incorporated by reference to Exhibit 2.1 to the Company's registration statement on Form S-1 filed on December 22, 2023).
3.1	Second Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.2 to the Company's Current Report Form 8-K filed on May 15, 2024).
3.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 5, 2024).
3.3	Certificate of Designation of Series A Non-Voting Convertible Preferred Stock (incorporated by reference to Exhibit 3.3 to the Company's registration statement on Form S-1 filed with the SEC on December 22, 2023).
3.4	Certificate of Designation of Series B Non-Voting Convertible Preferred Stock (incorporated by reference to Exhibit 3.4 to the Company's registration statement on Form S-1 filed with the SEC on December 22, 2023).
3.5	Certificate of Amendment to Certificate of Designation of Series B Non-Voting Convertible Preferred Stock (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed with the SEC on March 18, 2024).
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.2 to the Company's registration statement on Form S-1 filed with the SEC on December 22, 2023).
4.2	Form of Debt Indenture.
4.3*	Form of Debt Securities.
4.4*	Form of Warrant Agreement and Warrant Certificate.
4.5*	Form of Unit Agreement and Unit Certificate.
5.1	Opinion of Gibson, Dunn & Crutcher LLP, relating to the base prospectus.
5.2	Opinion of Gibson, Dunn & Crutcher LLP, relating to the sales agreement prospectus.
23.1	Consent of PricewaterhouseCoopers LLP.
23.2	Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1 hereto).
24.1	Power of Attorney (included on the signature pages to the registration statement).
25.1**	Statement of Eligibility of Trustee under the Indenture.
107	Filing Fee Table.

* To be filed, if necessary, by amendment or as an exhibit to a document to be incorporated or deemed to be incorporated by reference in this registration statement, including a Current Report on Form 8-K.

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

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

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

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

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Filing Fee Table" filed as an exhibit 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 (1)(i), (1)(ii), and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

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

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

(4) That, for the purpose of determining liability under the Securities Act 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 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 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.

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

(7) That, for purposes of determining any liability under the Securities Act, (i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(l) or (4) or 497(h) under the Securities Act shall be deemed to be a part of the registration statement as of the time it was declared effective; and (ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(9) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 the City of Waltham, Commonwealth of Massachusetts, on February 27, 2025.

Spyre Therapeutics, Inc.

By:	/s/ Cameron Turtle, DPhil
Name:	Cameron Turtle, DPhil
Title:	*Chief Executive Officer*

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Dr. Cameron Turtle and Mr. Scott Burrows, and each of them, as true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable the Company to comply with the provisions of the Securities Act and all requirements of the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ Cameron Turtle, DPhil Cameron Turtle, DPhil	Chief Executive Officer & Director *(Principal Executive Officer)*	February 27, 2025
/s/ Scott Burrows Scott Burrows	Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	February 27, 2025
/s/ Jeffrey W. Albers Jeffrey W. Albers	Chairman of the Board	February 27, 2025
/s/ Peter Harwin Peter Harwin	Director	February 27, 2025
/s/ Michael Henderson, M.D. Michael Henderson, M.D.	Director	February 27, 2025
/s/ Tomas Kiselak Tomas Kiselak	Director	February 27, 2025
/s/ Mark McKenna Mark McKenna	Director	February 27, 2025
/s/ Sandra Milligan Sandra Milligan	Director	February 27, 2025
/s/ Laurie Stelzer Laurie Stelzer	Director	February 27, 2025

Calculation of Filing Fee Tables

S-3

Spyre Therapeutics, Inc.

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													
		Equity	Common stock, $0.0001 par value per share	457(o)									
		Equity	Preferred stock, $0.0001 par value per share	457(o)									
		Debt	Debt Securities	457(o)									
		Other	Warrants	457(o)									
		Other	Units	457(o)									
Fees to be Paid	1	Unallocated (Universal) Shelf		457(o)			$ 430,071,875.00	0.0001531	$ 65,844.00				
Fees Previously Paid													
Carry Forward Securities													
Carry Forward Securities	2	Other	Unallocated (Universal) Shelf	415(a)(6)			$ 69,928,125.00			S-3	333-281975	09/18/2024	$ 10,321.39
						Total Offering Amounts:	$ 500,000,000.00		$ 65,844.00				
						Total Fees Previously Paid:			$ 0.00				
						Total Fee Offsets:			$ 0.00				
						Net Fee Due:			$ 65,844.00				

Offering Note

1

(a) The amount to be registered consists of up to $500,000,000 of an indeterminate amount of common stock, preferred stock, debt securities, warrants and/or units. There is also being registered hereunder such currently indeterminate number of (i) shares of common stock or other securities of the registrant as may be issued upon conversion of, or in exchange for, convertible or exchangeable debt securities and/or preferred stock registered hereby, or (ii) shares of preferred stock, common stock, debt securities or units as may be issued upon exercise of warrants registered hereby, as the case may be. Any securities registered hereunder may be sold separately or as units with the other securities registered hereunder.

(b) The proposed maximum aggregate offering price per unit will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act of 1933, as amended (the "Securities Act").

(c) Estimated solely for purposes of computing the registration fee pursuant to Rule 457(o) under the Securities Act. In no event will the aggregate offering price of all securities sold by the registrant from time to time pursuant to this registration statement exceed $500,000,000. No separate consideration will be received for (i) common stock or other securities of the registrant that may be issued upon conversion of, or in exchange for, convertible or exchangeable debt securities and/or preferred stock registered hereby, or (ii) preferred stock, common stock, debt securities or units that may be issued upon exercise of warrants registered hereby, as the case may be.

2

Pursuant to Rule 415(a)(6) under the Securities Act, securities with a maximum aggregate price of $69,928,125 registered hereunder are unsold securities (the "Unsold Securities") previously covered by the registrant's registration statement on Form S-3 (File No. 333-281975) which was initially filed with the Securities and Exchange Commission on September 6, 2024 and became effective on September 18, 2024 (the "Prior Registration Statement"), and are included in this registration statement. The registrant paid a filing fee of $10,321.39 (calculated at the filing fee rate in effect at the time of the filing of the Prior Registration Statement) relating to the Unsold Securities under the Prior Registration Statement. The registrant may continue to offer and sell under the Prior Registration Statement the Unsold Securities being registered hereunder. To the extent that, after the filing date hereof and prior to the effectiveness of this registration statement, the registrant sells any Unsold Securities under the Prior Registration Statement, the registrant will identify in a pre-effective amendment to this registration statement the updated number of Unsold Securities from the Prior Registration Statement to be included in this registration statement pursuant to Rule 415(a)(6) and the updated amount of new securities to be registered on this registration statement. Pursuant to Rule 415(a)(6) under the Securities Act, the offering of Unsold Securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.

SPYRE THERAPEUTICS, INC.

$200,000,000

COMMON STOCK

SALES AGREEMENT

September 6, 2024

TD Securities (USA) LLC
1 Vanderbilt Avenue
New York, New York 10017

Ladies and Gentlemen:

Spyre Therapeutics, Inc., a Delaware corporation (the "**Company**"), confirms its agreement (this "**Agreement**") with TD Securities (USA) LLC ("**TD Cowen**"), as follows:

1. Issuance and Sale of Shares. The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through TD Cowen, acting as agent and/or principal, shares (the "**Placement Shares**") of the Company's common stock, par value $0.0001 per share (the "**Common Stock**"), having an aggregate offering price of up to $200,000,000 (the "**Maximum Amount**"). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in this Section 1 on the number of shares of Common Stock issued and sold under this Agreement shall be the sole responsibility of the Company, and TD Cowen shall have no obligation in connection with such compliance. The issuance and sale of Common Stock through TD Cowen will be effected pursuant to the Registration Statement (as defined below) filed by the Company and after such Registration Statement has been declared effective by the Securities and Exchange Commission (the "**Commission**"), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement (as defined below) to issue the Placement Shares. The Company acknowledges and agrees that sales of Placement Shares under this Agreement may be made through affiliates of TD Cowen, and that TD Cowen may otherwise fulfill its obligations pursuant to this Agreement to or through an affiliated broker-dealer.

The Company shall file, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "**Securities Act**"), with the Commission a registration statement on Form S-3, including a base prospectus, relating to certain securities, including the Common Stock, to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the "**Exchange Act**"). The Company has prepared a prospectus supplement specifically relating to the Placement Shares (the

“**Prospectus Supplement**”) to the base prospectus included as part of such registration statement. The Company shall furnish to TD Cowen, for use by TD Cowen, copies of the prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement. Except where the context otherwise requires, such registration statement, and any post-effective amendment thereto, as amended when it becomes effective, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or 462(b) of the Securities Act, or any subsequent registration statement on Form S-3 filed pursuant to Rule 415(a)(6) under the Securities Act by the Company to cover any Placement Shares, is herein called the “**Registration Statement**.” Any registration statement and amendments thereto filed pursuant to Rule 462(b) of the Securities Act and relating to the offering covered by the Registration Statement is herein called a “**Rule 462(b) Registration Statement**” and, after such filing, the “Registration Statement” shall include any Rule 462(b) Registration Statement. The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as supplemented by the Prospectus Supplement, in the form in which such base prospectus and Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act, together with any “issuer free writing prospectus,” as defined in Rule 433 of the Securities Act regulations (“**Rule 433**”), relating to the Placement Shares that (i) is consented to by TD Cowen, hereinafter referred to as a “**Permitted Free Writing Prospectus**,” (ii) is required to be filed with the Commission by the Company or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i), in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g), is herein called the “**Prospectus**.” Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant to the Electronic Data Gathering Analysis and Retrieval System (“**EDGAR**”).

2. Placements. Each time that the Company wishes to issue and sell the Placement Shares hereunder (each, a “**Placement**”), it will notify TD Cowen by email notice (or other method mutually agreed to in writing by the parties) (a “**Placement Notice**”) containing the parameters in accordance with which it desires the Placement Shares to be sold, which shall at a minimum include the number or dollar amount of Placement Shares to be issued, the time period during which sales are requested to be made, any limitation on the number or dollar amount of Placement Shares that may be sold in any one Trading Day (as defined in Section 3) and any minimum price below which sales may not be made, a form of which containing such minimum sales parameters necessary is attached hereto as **Schedule 1**. The Placement Notice shall originate from any of the individuals from the Company set forth on **Schedule 2** (with a copy to

each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from TD Cowen set forth on **Schedule 2**, as such **Schedule 2** may be amended from time to time. The Placement Notice shall be effective upon receipt by TD Cowen unless and until (i) in accordance with the notice requirements set forth in Section 4, TD Cowen declines to accept the terms contained therein for any reason, in its sole discretion, which declination must occur within two (2) Business Days of the receipt of the Placement Notice, (ii) the entire amount of the Placement Shares have been sold, (iii) in accordance with the notice requirements set forth in Section 4, the Company suspends or terminates the Placement Notice, which it may do for any reason, in its sole discretion, (iv) the Company issues a subsequent Placement Notice with parameters superseding those on the earlier dated Placement Notice, which it may do for any reason, in its sole discretion, or (v) this Agreement has been terminated under the provisions of Section 11. The amount of any discount, commission or other compensation to be paid by the Company to TD Cowen in connection with the sale of the Placement Shares shall be calculated in accordance with the terms set forth in **Schedule 3.** It is expressly acknowledged and agreed that neither the Company nor TD Cowen will have any obligation whatsoever with respect to a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to TD Cowen and TD Cowen does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

3. Sale of Placement Shares by TD Cowen. Subject to the terms and conditions herein set forth, upon the Company's delivery of a Placement Notice, and unless the sale of the Placement Shares described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, TD Cowen, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Stock Market, Inc. ("**Nasdaq**") to sell such Placement Shares up to the amount specified, and otherwise in accordance with the terms of such Placement Notice. TD Cowen will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Shares hereunder setting forth the number of Placement Shares sold on such day, the volume-weighted average price of the Placement Shares sold, and the Net Proceeds (as defined below) payable to the Company. In the event the Company engages TD Cowen for a sale of Placement Shares that would constitute a "block" within the meaning of Rule 10b-18(a)(5) under the Exchange Act, the Company will provide TD Cowen, at TD Cowen's request and upon reasonable advance notice to the Company, on or prior to the Settlement Date (as defined below), the opinions of counsel, accountant's letter and officers' certificates set forth in Section 8 hereof, each dated the Settlement Date, and such other documents and information as TD Cowen shall reasonably request. TD Cowen may sell Placement Shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, including without limitation sales made through Nasdaq or on any other existing trading market for the Common Stock. TD Cowen shall not

purchase Placement Shares for its own account as principal unless expressly authorized to do so by the Company in a Placement Notice. The Company acknowledges and agrees that (i) there can be no assurance that TD Cowen will be successful in selling Placement Shares, and (ii) TD Cowen will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Shares for any reason other than a failure by TD Cowen to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Placement Shares as required under this Section 3. For the purposes hereof, "**Trading Day**" means any day on which the Company's Common Stock is purchased and sold on the principal market on which the Common Stock is listed or quoted.

Notwithstanding any other provision of this Agreement, the Company shall not offer, sell or deliver, or request the offer or sale, of any Placement Shares pursuant to this Agreement and, by notice to TD Cowen given by telephone (confirmed promptly by email), shall cancel any instructions for the offer or sale of any Placement Shares, and TD Cowen shall not be obligated to offer or sell any Placement Shares, (i) during any period in which the Company is, or could be deemed to be, in possession of material non-public information, or (ii) at any time from and including the date on which the Company shall issue a press release containing, or shall otherwise publicly announce, its earnings, revenues or other results of operations (an "**Earnings Announcement**") through and including the time that the Company files a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K that includes consolidated financial statements as of and for the same period or periods, as the case may be, covered by such Earnings Announcement.

4. Suspension of Sales.

(a) The Company or TD Cowen may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on **Schedule 2**, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by email correspondence to each of the individuals of the other party set forth on **Schedule 2**), suspend any sale of Placement Shares; *provided, however*, that such suspension shall not affect or impair either party's obligations with respect to any Placement Shares sold hereunder prior to the receipt of such notice. While a suspension pursuant to this Section 4(a) is in effect, any obligation under Sections 7(m), 7(n), and 7(o) with respect to the delivery of certificates, opinions, or comfort letters to TD Cowen shall be automatically waived; *provided*, that upon delivery of a Placement Notice following a Representation Date, the Company shall be subject to the obligations set forth in Sections 7(m), 7(n), and 7(o), as applicable. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other unless it is made to one of the individuals named on **Schedule 2** hereto, as such schedule may be amended from time to time.

(b) If either TD Cowen or the Company has reason to believe that the exemptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are not satisfied with respect to the Common Stock, it shall promptly notify the other party, and TD Cowen may, at its sole discretion, suspend sales of the Placement Shares under this Agreement.

(c) Notwithstanding any other provision of this Agreement, during any period in which the Registration Statement is no longer effective under the Securities Act, the Company shall promptly notify TD Cowen, the Company shall not request the sale of any Placement Shares, and TD Cowen shall not be obligated to sell or offer to sell any Placement Shares.

5. Settlement.

(a) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the first (1st) Trading Day following the date on which such sales are made (each, a "**Settlement Date**" and the first such settlement date, the "**First Delivery Date**"). The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the "**Net Proceeds**") will be equal to the aggregate sales price received by TD Cowen at which such Placement Shares were sold, after deduction for (i) TD Cowen's commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, (ii) any other amounts due and payable by the Company to TD Cowen hereunder pursuant to Section 7(g) (Expenses) hereof, provided that TD Cowen shall provide to the Company reasonable documentation of such amounts and (iii) any transaction fees imposed on TD Cowen by any governmental or self-regulatory organization in respect of such sales, provided that TD Cowen shall provide to the Company reasonable documentation of such amounts.

(b) Delivery of Placement Shares. On or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Shares being sold by crediting TD Cowen's or its designee's account (provided TD Cowen shall have given the Company written notice of such designee prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradeable, transferable, registered shares in good deliverable form. On each Settlement Date, TD Cowen will deliver the related Net Proceeds in same day funds to an account designated by the Company on, or prior to, the Settlement Date. TD Cowen shall be responsible for providing instructions for delivery with regard to the transfer of the Placement Shares. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver duly authorized Placement Shares on a Settlement Date (other than as a result of a failure by TD Cowen to provide true and correct instructions for delivery in a timely manner), the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 9(a) (Indemnification and Contribution) hereto, it will (i) hold TD Cowen harmless against any loss, claim, damage, or reasonable and documented expense (including reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company (ii) pay to TD Cowen (without duplication) any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

6. Representations and Warranties of the Company. Except as disclosed in the Registration Statement or the Prospectus (including any documents incorporated by reference therein and any supplements thereto), the Company represents and warrants to, and agrees with, TD Cowen that, unless such representation, warranty or agreement specifies a different time, as

of (i) the date of this Agreement, (ii) each Time of Sale (as defined below), (iii) each Settlement Date, and (iv) each Bring-Down Date (as defined below) (each date included in (i) through (iv), a "**Representation Date**"):

(a) Compliance with Registration Requirements. Prior to the issuance of any Placement Notice by the Company, the Registration Statement and any Rule 462(b) Registration Statement will have been filed and declared effective by the Commission under the Securities Act. The Company has complied, and will comply, to the Commission's satisfaction with all requests of the Commission for additional or supplemental information. 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 knowledge of the Company, contemplated or threatened by the Commission. The Company meets the requirements for use of Form S-3 under the Securities Act. The sale of the Placement Shares hereunder meets the requirements of General Instruction I.B.1 of Form S-3.

(b) No Misstatement or Omission. The Prospectus when filed will comply and, as amended or supplemented, if applicable, will comply in all material respects with the Securities Act. Each of the Registration Statement, any Rule 462(b) Registration Statement, the Prospectus and any post-effective amendments or supplements thereto, at the time it becomes effective or its date, as applicable, and as of each Representation Date, will comply in all material respects with the Securities Act. Each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments or supplements thereto, at the time it becomes effective or its date, as applicable, and as of each Representation Date, 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. The Prospectus, as amended or supplemented, as of its date and as of each Representation Date, 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 two 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 Agent's Information (as defined 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. As used herein, "**Time of Sale**" means with respect to each offering of Placement Shares pursuant to this Agreement, the time of TD Cowen's initial entry into contracts with purchasers for the sale of such Placement Shares.

(c) Offering Materials Furnished to TD Cowen. Except as otherwise available on EDGAR, the Company has delivered to TD Cowen one complete copy of the Registration Statement and a copy of each consent and certificate of experts filed as a part thereof, and conformed copies of the Registration Statement (without exhibits) and the Prospectus, as amended or supplemented, in such quantities and at such places as TD Cowen has reasonably requested.

(d) No Use of Free Writing Prospectuses. The Company shall not prepare, use, refer to or distribute 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 so long as the Company remains an "ineligible issuer" as such term is defined under Rule 405 under the Securities Act.

(e) Distribution of Offering Material By the Company. The Company has not distributed and will not distribute, prior to the completion of TD Cowen's distribution of the Placement Shares, any offering material in connection with the offering and sale of the Placement Shares other than the Prospectus or the Registration Statement.

(f) The Sales Agreement. This Agreement has been duly authorized, executed and delivered by, and, assuming the due authorization, execution and delivery by TD Cowen, is a valid and binding agreement of, the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as the enforcement hereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles.

(g) Authorization of the Common Stock. The Placement Shares, when issued and delivered, will be duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be duly authorized, validly issued, fully paid and nonassessable, free and clear of any pledge, lien, encumbrance, security interest or other claim, and the issuance and sale of the Placement Shares by the Company is not subject to preemptive or other similar rights arising by operation of law, under the organizational documents of the Company or under any agreement to which the Company or any Subsidiary is a party or otherwise, except as have been validly waived or complied with.

(h) No Applicable Registration or Other Similar Rights. There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived or complied with.

(i) No Material Adverse Change. Subsequent to the respective dates as of which information is given in the Prospectus: (i) there has been no material adverse change, or any development that could reasonably be expected to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business, operations or prospects, whether or not arising from transactions in the ordinary course of business, of the Company and its Subsidiaries (as defined below), considered as one entity (any such change is called a "**Material Adverse Change**"); (ii) the Company and its Subsidiaries, considered as one entity, have not incurred any material liability or obligation, indirect, direct or contingent, not in the ordinary course of business nor entered into any material transaction or agreement not in the ordinary course of business; and (iii) there has been no dividend or distribution of any kind declared, paid or made by the Company or, except for regular quarterly dividends publicly announced by the Company or dividends paid to the Company or other Subsidiaries, by any of

its Subsidiaries on any class of capital stock or repurchase or redemption by the Company or any of its Subsidiaries of any class of capital stock.

(j) Independent Accountants. PricewaterhouseCoopers LLP, which has expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) and supporting schedules filed with the Commission or incorporated by reference as a part of the Registration Statement and included in the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Exchange Act.

(k) Preparation of the Financial Statements. The financial statements filed with the Commission as a part of or incorporated by reference in the Registration Statement and included in the Prospectus present fairly in all material respects the consolidated financial position of the Company and its Subsidiaries as of and at the dates indicated and the results of their operations and cash flows for the periods specified. The supporting schedules (if any) included in or incorporated in the Registration Statement present fairly in all material respects the information required to be stated therein. Such financial statements and supporting schedules (if any) have been prepared in conformity with generally accepted accounting principles as applied in the United States applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto and in the case of unaudited interim financial statements, which are subject to normal year-end adjustments and do not contain certain footnotes as permitted by the applicable rules of the Commission. No other financial statements or supporting schedules are required to be included in or incorporated in the Registration Statement.

(l) XBRL. 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 in all material respects.

(m) Incorporation and Good Standing of the Company and its Subsidiaries. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus and to enter into and perform its obligations under this Agreement and to consummate the transactions contemplated herein and therein. Each material subsidiary of the Company (each a "**Subsidiary**") has been duly organized and is validly existing as a corporation or limited liability company in good standing under the laws of the jurisdiction of its organization and has the requisite power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus, except where the failure to be in good standing or have such power or authority would not, individually or in the aggregate, result in a Material Adverse Change. Each of the Company and its Subsidiaries is duly qualified as a foreign corporation or foreign partnership to transact business and is in good standing under the laws of the jurisdiction of its incorporation or formation and 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 for such jurisdictions where the failure to so qualify or to be in good standing would not, individually or in the aggregate, result in a Material Adverse Change. All of the issued and outstanding equity interests of the Subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company, directly or through the Subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance or adverse claim. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21.1 to the Company's Annual Report on Form 10-K for the most recently ended fiscal year and other than (i) those Subsidiaries not required to be listed on Exhibit 21.1 by Item 601 of Regulation S-K under the Exchange Act and (ii) those Subsidiaries formed since the last day of the most recently ended fiscal year.

(n) Capital Stock Matters. The Common Stock conforms in all material respects to the description thereof contained in the Prospectus. All of the issued and outstanding shares of Common Stock have been duly authorized and validly issued, are fully paid and nonassessable and have been issued in compliance with applicable federal and state securities laws. None of the outstanding shares of Common Stock were issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any of its Subsidiaries other than those accurately described in all material respects in the Prospectus. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Prospectus accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights.

(o) Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required. Neither the Company nor any of its Subsidiaries is in violation of its charter or bylaws or is in default (or, with the giving of notice or lapse of time, would be in default) ("**Default**") under any indenture, mortgage, loan or credit agreement, note, contract, franchise, lease or other 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 property or assets of the Company or any of its Subsidiaries is subject (each, an "**Existing Instrument**"), except for such Defaults as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change. The Company's execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby and by the Prospectus (i) have been duly authorized by all necessary corporate action and will not result in any violation of the provisions of the charter or bylaws of the Company or any Subsidiary, (ii) will not conflict with or constitute a breach of, or Default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its Subsidiaries pursuant to, or require the consent of any other party to, any Existing Instrument, and (iii) will not result in any violation of any law, administrative regulation or administrative or court decree applicable to the Company or any Subsidiary, except in the case of clauses (ii) and (iii) above, as would not reasonably be expected, individually or in the aggregate, to result in a

Material Adverse Change. No consent, approval, authorization or other order of, or registration or filing with, any court or other governmental or regulatory authority or agency, is required for the Company's execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby and by the Prospectus, except such as have been obtained or made by the Company and are in full force and effect under the Securities Act, applicable state securities or blue sky laws and from the Financial Industry Regulatory Authority, Inc. ("**FINRA**").

(p) No Material Actions or Proceedings. There are no legal or governmental actions, suits or proceedings pending or, to the Company's knowledge, threatened (i) against or affecting the Company or any of its Subsidiaries, (ii) which has as the subject thereof any officer or director of, or property owned or leased by, the Company or any of its Subsidiaries or (iii) relating to environmental or discrimination matters, where in any such case (A) there is a reasonable possibility that such action, suit or proceeding might be determined adversely to the Company or such Subsidiary and (B) any such action, suit or proceeding, if so determined adversely, would reasonably be expected to result in a Material Adverse Change or adversely affect the consummation of the transactions contemplated by this Agreement. No material labor dispute with the employees of the Company or any of its Subsidiaries exists or, to the Company's knowledge, is threatened or imminent.

(q) All Necessary Permits, etc. The Company and each Subsidiary possess such valid and current certificates, authorizations or permits issued by the appropriate state, federal or foreign regulatory agencies or bodies necessary to conduct their respective businesses, other than those the failure to possess or own would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Change, and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to, individually or in the aggregate, result in a Material Adverse Change.

(r) Tax Law Compliance. The Company and its consolidated Subsidiaries have filed all necessary federal, state and foreign income, property and franchise tax returns or have properly requested extensions thereof, other than those returns where the failure to file would not result in a Material Adverse Change, and have paid all taxes required to be paid by any of them and, if due and payable, any related or similar assessment, fine or penalty levied against any of them, except as may be being contested in good faith and by appropriate proceedings or such amounts where the failure to pay would not result in a Material Adverse Change. The Company has made adequate charges, accruals and reserves, in conformity with U.S. GAAP, in the applicable financial statements referred to in Section 1(k) above in respect of all material federal, state and foreign income, property and franchise taxes for all periods as to which the tax liability of the Company or any of its consolidated Subsidiaries has not been finally determined.

(s) Company Not an "Investment Company". The Company has been advised of the rules and requirements under the Investment Company Act of 1940, as amended (the "**Investment Company Act**"). The Company is not, and after receipt of payment for the

Common Stock will not be, an "investment company" within the meaning of Investment Company Act.

(t) Insurance. The Company is insured by insurers of recognized financial responsibility with policies in such amounts and with such deductibles and covering such risks as are generally deemed adequate and customary for the business for which it is engaged including, but not limited to, policies covering real and personal property owned or leased by the Company against theft, damage, destruction, acts of vandalism and earthquakes. The Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to result in a Material Adverse Change.

(u) No Price Stabilization or Manipulation. The Company has not taken and 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 any security of the Company to facilitate the sale or resale of the Placement Shares.

(v) Related Party Transactions. There are no business relationships or related-party transactions involving the Company or any Subsidiary or any other person required to be described in the Prospectus which have not been described as required by applicable laws.

(w) 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 Settlement Dates, 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.

(x) No Unlawful Contributions or Other Payments. Since June 22, 2023 (the "**Merger Date**"), and, to the Company's knowledge, prior to the Merger Date, neither the Company nor any of its Subsidiaries has, nor, to the Company's knowledge, has any director, officer, employee, agent, affiliate or other person acting on behalf of the Company or any Subsidiary, (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government officials or employees, political parties or campaigns, political party officials, or candidates for political office from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or any applicable anti-corruption laws, rules, or regulations of any other jurisdiction in which the Company or any Subsidiary conducts business; or (iv) made any other unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any person.

(y) Compliance with Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times since the Merger Date, and, to the

Company's knowledge, prior to the Merger Date, in compliance with all applicable financial recordkeeping and reporting requirements, including those of the U.S. Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of 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 agency (collectively, the "**Anti-Money Laundering Laws**"), and no action, suit or proceeding by or before any court or governmental agency, authority, body or any arbitrator involving the Company or any of its Subsidiaries with respect to Anti-Money Laundering Laws is pending, or to the knowledge of the Company, threatened.

(z) Compliance with OFAC. Neither the Company nor any of its Subsidiaries, nor to the Company's knowledge, any director, officer or employee thereof, nor to the Company's knowledge, any agent, affiliate, representative, or other person acting on behalf of the Company or any of its Subsidiaries, is an individual or entity ("**Person**") that is, or is owned or controlled by a Person that is: (i) the subject of any economic, financial or trade sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control ("**OFAC**"), the United Nations Security Council, the European Union ("**EU**"), His Majesty's Treasury, the Swiss Secretariat of Economic Affairs, or other relevant sanctions authority (collectively, "**Sanctions**"), nor (ii) located, organized, or resident in a country or territory that is the subject of a U.S. government embargo (including, without limitation, the so-called Donetsk People's Republic, the so-called Luhansk People's Republic, the Crimea Region of Ukraine, the non-government controlled areas of the Zaporizhzhia and Kherson Regions, Cuba, Iran, North Korea and Syria).

(A) The Company will not, directly or indirectly, use the Net Proceeds, or lend, contribute or otherwise make available such Net Proceeds to any Subsidiary, joint venture partner or other Person: (i) to fund or facilitate any activities or business of or with any Person that, at the time of such funding or facilitation, is the subject of Sanctions, or in any country or territory that, at the time of such funding or facilitation, is the subject of a U.S. government embargo; or (ii) in any other manner that will result in a violation of Sanctions by any Person (including TD Cowen).

(B) Since April 24, 2019, the Company and its Subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any direct or indirect dealings or transactions with any Person that at the time of the dealing or transaction is or was the subject of Sanctions or any country or territory that, at the time of the dealing or transaction is or was the subject of a U.S. government embargo.

(aa) Company's Accounting System. The Company maintains a system of "internal control over financial reporting" (as such term is defined in Rule 13a-15(f) of the General Rules

and Regulations under the Exchange Act (the "**Exchange Act Rules**")) that complies with the requirements of the Exchange Act and has been designed by their respective principal executive and principal financial officers, or under their supervision, to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective. Since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) 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. The Company maintains and will continue to maintain a standard system of accounting established and administered in accordance with U.S. GAAP and the applicable requirements of the Exchange Act.

(bb) Sarbanes-Oxley; Disclosure Controls. The Company is in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder. The Company has established and maintains disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) designed to ensure that (a) material information relating to the Company and its Subsidiaries is made known to the Company's principal executive officer and its principal financial officer by others within those entities and (b) information required to be disclosed by the Company in reports that it files, furnishes or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company's management as appropriate to allow timely decisions regarding required disclosure. The Company has conducted evaluations of the effectiveness of its disclosure controls as required by Rule 13a-15 of the Exchange Act.

(cc) Compliance with Environmental Laws. Except as would not, individually or in the aggregate, result in a Material Adverse Change (i) neither the Company nor any of its Subsidiaries is in violation of any federal, state, local or foreign law or regulation relating to pollution or protection of human health or 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 emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum and petroleum products (collectively, "**Materials of Environmental Concern**"), or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Materials of Environmental Concern (collectively, "**Environmental Laws**"), which violation includes, but is not limited to, noncompliance with any permits or other governmental authorizations required for the operation of the business of the Company or its Subsidiaries under applicable Environmental Laws, or noncompliance with the terms and conditions thereof, nor has the Company or any of its Subsidiaries received any

written communication, whether from a governmental authority, citizens group, employee or otherwise, that alleges that the Company or any of its Subsidiaries is in violation of any Environmental Law; (ii) there is no claim, action or cause of action filed with a court or governmental authority, no investigation with respect to which the Company has received written notice, and no written notice by any person or entity alleging potential liability for investigatory costs, cleanup costs, governmental responses costs, natural resources damages, property damages, personal injuries, attorneys' fees or penalties arising out of, based on or resulting from the presence, or release into the environment, of any Material of Environmental Concern at any location owned, leased or operated by the Company or any of its Subsidiaries, now or in the past (collectively, "**Environmental Claims**"), pending or, to the Company's knowledge, threatened against the Company or any of its Subsidiaries or any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law; and (iii) to the Company's knowledge, there are no past or present actions, activities, circumstances, conditions, events or incidents, including, without limitation, the release, emission, discharge, presence or disposal of any Material of Environmental Concern, that reasonably could result in a violation of any Environmental Law or form the basis of a potential Environmental Claim against the Company or any of its Subsidiaries or against any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law.

(dd) Intellectual Property. The Company and its Subsidiaries own, possess, have valid license rights or can acquire on a reasonable terms, adequate rights to use all (i) patents, patent applications, trademarks, trademark registrations, service marks, service mark registrations, Internet domain name registrations, copyrights, copyright registrations, licenses, trade secret rights ("**Intellectual Property Rights**") and (ii) inventions, software, works of authorships, trademarks, service marks, trade names, databases, formulae, know how, Internet domain names and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary confidential information, systems, or procedures) (collectively, "**Intellectual Property Assets**") necessary to conduct their respective businesses as currently conducted, and as proposed to be conducted and described in the Prospectus. The Company and its Subsidiaries have not received any opinion from their legal counsel concluding that any activities of their respective businesses infringe, misappropriate, or otherwise violate, valid and enforceable Intellectual Property Rights of any other person, and have not received written notice of any challenge, which is to their knowledge still pending, by any other person to the rights of the Company and its Subsidiaries with respect to any Intellectual Property Rights or Intellectual Property Assets owned or used by the Company or its Subsidiaries. To the knowledge of the Company, the Company and its Subsidiaries' respective businesses as now conducted do not give rise to any infringement of, any misappropriation of, or other violation of, any valid and enforceable Intellectual Property Rights of any other person in any material respect. All licenses for the use of the Intellectual Property Rights described in the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance to its terms. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, the Company has complied in all material respects with, and is not in breach of, any intellectual property license and has not received any asserted or threatened claim of breach of any intellectual property license. The Company has no knowledge of any breach or anticipated breach by any other person to any

intellectual property license. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, no written claim has been made against the Company alleging the infringement by the Company of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person. The Company has taken all reasonable steps to protect, maintain and safeguard its Intellectual Property Rights, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, the Company's right to own, use, or hold for use any of the Intellectual Property Rights as owned, used or held for use in the conduct of the business as currently conducted.

(ee) Listing. The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) or Section 12(g) of the Exchange Act and is listed on the Nasdaq, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. All of the Placement Shares that have been or may be sold under this Agreement have been approved for listing on the Nasdaq, subject to official notice of issuance; the Company has taken all necessary actions to ensure that, upon and at all times after the Nasdaq shall have approved the Placement Shares for listing, it will be in compliance with all applicable corporate governance requirements set forth in the Nasdaq's listing rules that are then in effect.

(ff) Brokers. Except for TD Cowen, 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.

(gg) No Outstanding Loans or Other Indebtedness. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company.

(hh) No Reliance. The Company has not relied upon TD Cowen or legal counsel for TD Cowen for any legal, tax or accounting advice in connection with the offering and sale of the Placement Shares.

(ii) Lending Relationship. The Company does not intend to use any of the proceeds from the sale of the Placement Shares to repay any outstanding debt owed to TD Cowen or any affiliate of TD Cowen.

(jj) FINRA Exemption. The Company qualifies as an "experienced issuer" (within the meaning of FINRA Conduct Rule 5110(j)(6)) for purposes of the exemption from filing under FINRA Conduct Rule 5110(h)(1)(C).

(kk) Compliance with Laws. The Company has not been advised, and has no reason to believe, that it and each of its Subsidiaries are not conducting business in compliance with all applicable laws, rules and regulations of the jurisdictions in which it is conducting business, except where failure to be so in compliance would not result in a Material Adverse Change.

(ll) Privacy Laws. To the Company's knowledge, the Company and each of its Subsidiaries are, and at all prior times have been, in material compliance with all applicable Privacy Laws. "**Privacy Laws**" means data privacy and security laws and regulations, including, without limitation, the Health Insurance Portability and Accountability Act ("**HIPAA**"), as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the European Union General Data Protection Regulation ("**GDPR**") (EU 2016/679), in each case, to the extent applicable to the Company, if at all. To ensure compliance with the Privacy Laws, the Company and each of its Subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling and analysis of Personal Data (the "**Policies**"). The Company provides accurate notice of its Policies to its customers, employees, third party vendors and representatives. The Policies provide accurate and sufficient notice of the Company's then-current privacy practices relating to its subject matter and such Policies do not contain any material omissions of the Company's then-current privacy practices. "**Personal Data**" means (i) a natural persons' name, street address, telephone number, email address, social security number, or customer or account number in combination with any required password or log in information that would permit access to the financial account; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "protected health information" as defined by HIPAA; (iv) "personal data" as defined by GDPR; and (v) any other piece of information that allows the identification of such natural person, or his or her household, or permits the collection or analysis of any data related to an identified person's health or sexual orientation. None of such disclosures made or contained in any of the Policies have been inaccurate, misleading, deceptive or in violation of any Privacy Laws or Policies in any material respect. The execution, delivery and performance of this Agreement or any other agreement referred to in this Agreement will not result in a breach of any Privacy Laws or Policies by the Company. Neither the Company nor any of its Subsidiaries, (i) since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, has received notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposed any obligation or liability under any Privacy Law.

(mm) IT Systems. (i) (x) To the Company's knowledge, there has been no material security breach, attack or other compromise of or relating to any of the Company's and its Subsidiaries' information technology and computer systems, networks, hardware, software, personal data, or other confidential, regulated, or sensitive data (including the data of their respective customers, employees, suppliers, vendors and any third party data maintained by or on

behalf of them), equipment or technology ("**IT Systems and Data**"), and (y) since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, the Company and its Subsidiaries have not been notified of, and have or had no knowledge of, any event or condition that would reasonably be expected to result in any security breach, attack or compromise to their IT Systems and Data, (ii) the Company and each of its Subsidiaries have complied since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, and are presently in compliance with, all applicable laws, statutes, judgments, orders, rules or regulations of any court or arbitrator or governmental or regulatory authority and all industry guidelines, standards, 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 and (iii) the Company and each of its Subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practices.

(nn) Export and Import Laws. (i) Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, each of the Company and the Subsidiaries has, and (ii) to the Company's knowledge, each of their affiliates and any director, officer, agent or employee of, or other person associated with or acting on behalf of, the Company has, acted at all times in compliance with applicable Export and Import Laws (as defined below) and there are no claims, complaints, charges, investigations or proceedings pending or expected or, to the knowledge of the Company, threatened between the Company or any of the Subsidiaries and any governmental authority under any Export or Import Laws. The term "**Export and Import Laws**" means the Arms Export Control Act, the International Traffic in Arms Regulations, the Export Administration Act of 1979, as amended, the Export Administration Regulations, and all other laws and regulations of the United States government regulating the provision of services to non-U.S. parties or the export and import of articles or information from and to the United States of America, and all similar laws and regulations of any foreign government regulating the provision of services to parties not of the foreign country or the export and import of articles and information from and to the foreign country to parties not of the foreign country.

(oo) Compliance with Healthcare Laws. The Company and each of its Subsidiaries have operated since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, and currently are in material compliance with all applicable Health Care Laws. "**Health Care Laws**" means health care laws, rules, regulations, accreditations and ethical standards, including, without limitation, (i) the Federal, Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.); (ii) the Public Health Service Act (42 U.S.C. § 201 et seq.); (iii) all applicable rules and regulations of the U.S. Food and Drug Administration ("**FDA**"), including, to the extent applicable, those requirements relating to investigational use, premarket notification and premarket approval, establishment registration, complaint handling, reporting of corrections and removals, and FDA's Quality System Regulation at 21 C.F.R. Part 820; (iv) all applicable laws governing licensure, accreditation, certification and operation of clinical laboratories and the performance of laboratory-developed tests, including but not limited to the U.S. Clinical Laboratory Improvement Amendments of 1988, 42 U.S.C. § 263a, and its implemental regulations at 42 C.F.R. Part 493, and state laws governing the operation of clinical laboratories; (v) all applicable federal, state, local and all applicable foreign healthcare related fraud and abuse

laws, including, without limitation, the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the federal Ethics in Patient Referrals or the "Stark Law" (42 U.S.C. §1395nn), the U.S. Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), as well as any corollary state statutes governing disclosure of payments by manufacturers or suppliers to healthcare professionals, the Eliminating Kickbacks in Recovery Act (18 U.S.C. §220), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. §§ 3891 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all applicable criminal laws relating to healthcare fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, the healthcare fraud criminal provisions under HIPAA, the exclusion laws (42 U.S.C. § 1320a-7), and the civil monetary penalties law (42 U.S.C. § 1320a-7a); (vi) and any other applicable federal or corollary state laws pertaining to the privacy and security of patient information, including laws pertaining to the protection of genetic data or biospecimens; (vii) the Medicare program (Title XVIII of the Social Security Act, including the amendments implemented by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 and the Medicare Improvements for Patients and Providers Act of 2008), (viii) the Medicaid program (Title XIX of the Social Security Act), (ix) the Patient Protection and Affordable Care Act (Pub. L. 111-148) as amended by the Health Care and Education Reconciliation Act of 2010 (Pub. L. 111-152), (x) laws applicable to clinical research, including but not limited to the federal Policy for Protection of Human Subjects (42 C.F.R. Part 46), the FDCA and its applicable implementing regulations at 21 C.F.R. Parts 50, 54, 56, 58 and 312, the United States Animal Welfare Act, the International Conference on Harmonization's (ICH) Guideline on Nonclinical Safety Studies for the Conduct of Human Clinical Trials for Pharmaceuticals and the ICH Guideline on Safety Pharmacology Studies for Human Pharmaceuticals, and all equivalent legal requirements in other jurisdictions in which the Company operates; and (xi) all applicable federal or state laws pertaining to genetic counseling and telehealth services (including but not limited to federal and state licensure requirements and informed consent requirements), in each case for clauses (i)-(xi), to the extent applicable to the Company, if at all. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, the Company and each of its Subsidiaries have timely filed all material reports, applications, statements, documents, registrations, filings, corrections, updates, amendments, supplements, and submissions required to be filed by them under applicable Health Care Laws. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, each such filing was true and correct in all material respects as of the date of submission, or was corrected in or supplemented by a subsequent filing, and any material and legally necessary or required updates, changes, corrections, amendments, supplements, or modifications to such filings have been submitted to the applicable governmental or regulatory authorities. The Company maintains an operational healthcare compliance program that governs all employees and contractors and is consistent with guidance by the U.S. Department of Health and Human Services Office of Inspector General for effective compliance programs. The Company and its Subsidiaries further operates in material compliance with such healthcare compliance program. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, the Company and each of its Subsidiaries have not received written notice or other correspondence of any claim, action, suit, audit, or survey finding, proceeding, hearing, enforcement, investigation, arbitration or other action ("**Health Care Action**") from any court or arbitrator or governmental or regulatory authority or third party alleging that any of their product, operation or activity is in material violation of any Health Care Laws, and, to the Company's knowledge,

no such Health Care Action is threatened. Neither the Company nor any of its Subsidiaries are a party to or have any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental or regulatory authority. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, neither the Company nor any of its Subsidiaries have received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA or any other governmental or regulatory authority alleging or asserting any material noncompliance with any Health Care Laws. Additionally, (i) since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, neither the Company nor any of its Subsidiaries has, and (ii) to the Company's knowledge, none of its employees, officers or directors has, been excluded, suspended or debarred from participation in any U.S. state or federal health care program or human clinical research. To the Company's knowledge, none of the Company, any of its Subsidiaries, or any of its employees, officers or directors, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

(pp) Studies and Tests. Since the Merger Date, and, to the Company's knowledge, prior to the Merger Date, the studies and tests conducted by or, to the Company's knowledge, on behalf of the Company, were and, if still ongoing, are being conducted in all material respects in accordance with all permits and applicable laws, including, without limitation, the Federal Food, Drug, and Cosmetic Act and the rules and regulations promulgated thereunder; the descriptions, if any, of the results of such studies and tests contained in the Registration Statement and the Prospectus are, to the Company's knowledge, accurate in all material respects and fairly present, in all material aspects, the data derived from such studies and tests; the Company is not aware of any studies or tests, the results of which the Company believes reasonably call into question the study, test, or trial results described or referred to in the Registration Statement and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and the Company has not received any written notices or correspondence from the FDA or any governmental entity requiring the termination or suspension of any studies or tests conducted by or on behalf of the Company, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies or tests.

(qq) Off Balance Sheet Arrangements. There is no transaction, arrangement, or other relationship between the Company (or any Subsidiary) and an unconsolidated or other off balance sheet entity that is required to be disclosed by the Company in the Company's reports filed with the Commission and is not so disclosed and would have or reasonably be expected to result in a Material Adverse Change.

(rr) Other At The Market Sales Agreements. The Company is not a party to any agreement with an agent or underwriter for any other "at the market" offering.

(ss) Actively-Traded Security. The Common Stock is an "actively-traded security" exempted from the requirements of Rule 101 of Regulation M under the Exchange Act by subsection (c)(1) of such rule.

Any certificate signed by an officer of the Company and delivered to TD Cowen or to counsel for TD Cowen pursuant to or in connection with this Agreement shall be deemed to be a representation by the Company to TD Cowen as to the matters set forth therein.

The Company acknowledges that TD Cowen and, for purposes of the opinions to be delivered pursuant to Section 7 hereof, counsel to the Company and counsel to TD Cowen, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

7. Covenants of the Company. The Company covenants and agrees with TD Cowen that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Shares is required to be delivered by TD Cowen under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify TD Cowen promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference or amendments not related to the transactions contemplated hereby, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus, other than documents incorporated by reference, has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information (in each case, insofar as it relates to the transactions contemplated hereby), (ii) the Company will prepare and file with the Commission, promptly upon TD Cowen's reasonable request, any amendments or supplements to the Registration Statement or Prospectus that, in TD Cowen's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by TD Cowen (*provided, however*, that (x) the failure of TD Cowen to make such request shall not relieve the Company of any obligation or liability hereunder, or affect TD Cowen's right to rely on the representations and warranties made by the Company in this Agreement and (y) the only remedy TD Cowen shall have with respect to the failure by the Company to make such filings (other than TD Cowen's rights under Section 9 hereof) shall be to cease making sales under this Agreement until such amendment or supplement is filed); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Placement Shares or a security convertible into the Placement Shares unless a copy thereof has been submitted to TD Cowen within a reasonable period of time before the filing and TD Cowen has not reasonably objected thereto (*provided, however*, that (A) the failure of TD Cowen to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect TD Cowen's right to rely on the representations and warranties made by the Company in this Agreement, (B) the Company has no obligation to provide TD Cowen any advance copy of such filing or to provide TD Cowen an opportunity to object to such filing if the filing does not name TD Cowen and does not relate to the transaction herein and (C)

the only remedy TD Cowen shall have with respect to the failure by the Company to provide TD Cowen with such copy or the filing of such amendment or supplement despite TD Cowen's objection (other than TD Cowen's rights under Section 9 hereof) shall be to cease making sales under this Agreement until such amendment or supplement is filed) and the Company will furnish to TD Cowen at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; (iv) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act, and (v) prior to the termination of this Agreement, the Company will notify TD Cowen if at any time the Registration Statement shall no longer be effective as a result of the passage of time pursuant to Rule 415 under the Securities Act or otherwise. Prior to the initial sale of any Placement Shares, the Company shall file the Prospectus Supplement pursuant to Rule 424(b) relating to the Placement Shares.

(b) Notice of Commission Stop Orders. The Company will advise TD Cowen, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which a Prospectus relating to the Placement Shares is required to be delivered by TD Cowen under the Securities Act with respect to a pending sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its best reasonable efforts to comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates all reports (taking into account any extensions available under the Exchange Act) and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If during such period any event occurs 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 a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify TD Cowen to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance; *provided*, however, that the Company may delay the filing of any amendment or supplement if, in the judgment of the Company, it is in the its best interests to do so.

(d) Listing of Placement Shares. During any period in which the Prospectus relating to the Placement Shares is required to be delivered by TD Cowen under the Securities Act with

respect to a pending sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its commercially reasonable efforts to cause the Placement Shares to be listed on Nasdaq and to qualify the Placement Shares for sale under the securities laws of such jurisdictions as TD Cowen reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Placement Shares; *provided, however,* that the Company shall not be required in connection therewith to qualify as a foreign corporation or dealer in securities or file a general consent to service of process in any jurisdiction or be subject to taxation as a foreign corporation in any jurisdiction.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to TD Cowen and its counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus that are filed with the Commission during any period in which a Prospectus relating to the Placement Shares is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities as TD Cowen may from time to time reasonably request and, at TD Cowen's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; *provided, however,* that the Company shall not be required to furnish any document (other than the Prospectus) to TD Cowen to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) and Rule 158 of the Securities Act; *provided*, however, that the Company will be deemed to have furnished any such statement to its security holders to the extent it is filed on EDGAR.

(g) Expenses. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, in accordance with the provisions of Section 11 hereunder, will pay the following expenses all incident to the performance of its obligations hereunder, including, but not limited to, expenses relating to (i) the preparation, printing and filing of the Registration Statement and each amendment and supplement thereto, of each Prospectus and of each amendment and supplement thereto, (ii) the preparation, issuance and delivery of the Placement Shares, (iii) the qualification of the Placement Shares under securities laws in accordance with the provisions of Section 7(d) of this Agreement, including filing fees (provided, however, that any fees or disbursements of counsel for TD Cowen in connection therewith shall be paid by TD Cowen except as set forth in (vii) below), (iv) the printing and delivery to TD Cowen of copies of the Prospectus and any amendments or supplements thereto, and of this Agreement, (v) the fees and expenses incurred in connection with the listing or qualification of the Placement Shares for trading on Nasdaq, (vi) the filing fees and expenses, if any, owed to the Commission, (vii) up to $20,000 for the term of this Agreement for the reasonable and documented fees and disbursements of TD Cowen's outside counsel for

determining the compliance of the terms of the sale of Placement Shares with the rules of FINRA and the filing fees incident to any required filing with FINRA, and (viii) the reasonable and documented fees and disbursements of TD Cowen's outside counsel in connection with the offering contemplated by this Agreement, in an amount not to exceed $75,000 for the term of this Agreement (exclusive of the amount set forth in clause (vii)).

(h) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

(i) Notice of Other Sales. During the pendency of any Placement Notice given hereunder, and for two (2) trading days following the termination of any Placement Notice given hereunder, the Company shall provide TD Cowen notice as promptly as reasonably possible before it offers to sell, contracts to sell, sells, grants any option to sell or otherwise disposes of any shares of Common Stock (other than Placement Shares offered pursuant to the provisions of this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire Common Stock; *provided*, that such notice shall not be required in connection with the (i) issuance, grant or sale of Common Stock, options to purchase shares of Common Stock, restricted stock units, stock awards, warrants, rights or other equity awards or Common Stock issuable upon the exercise, conversion, settlement, exchange, redemption or vesting of options, restricted stock units, stock awards, warrants, rights or other equity awards pursuant to any stock option, stock bonus or other equity incentive or stock purchase plan or arrangement described in the Prospectus or pursuant to any inducement awards in accordance with Nasdaq rules, (ii) the issuance of securities in connection with an acquisition, merger or sale or purchase of assets, (iii) the issuance or sale of Common Stock pursuant to any dividend reinvestment plan that the Company may adopt from time to time provided the implementation of such is disclosed to TD Cowen in advance, (iv) the issuance or sale of any shares of Common Stock issuable upon the exchange, conversion or redemption of securities or the exercise of warrants, options or other rights in effect or outstanding or (v) the issuance or sale of Common Stock, or securities convertible into or exercisable for Common Stock offered and sold in a private placement transaction to vendors, customers, strategic partners or potential strategic partners if the primary purpose is not a capital raising transaction and is otherwise conducted in a manner so as not to be integrated with the offering of the shares of Common Stock hereby.

(j) Change of Circumstances. The Company will, at any time during the pendency of a Placement Notice or sale of Placement Shares, advise TD Cowen promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided to TD Cowen pursuant to this Agreement.

(k) Due Diligence Cooperation. During the term of this Agreement, the Company will cooperate with any reasonable due diligence review conducted by TD Cowen or its agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices, as TD Cowen may reasonably request.

(l) Required Filings Relating to Placement of Placement Shares. The Company agrees that on or prior to such dates as the Securities Act shall require, the Company will (i) file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b) under the Securities Act, which prospectus supplement will set forth the average price per Placement Share sold and the gross proceeds to the Company from the sale of the Placement Shares and the issuance costs of the Company with respect to sales of the Placement Shares pursuant to this Agreement during the relevant period, and (ii) deliver such number of copies of each such prospectus supplement to each exchange or market on which such sales were effected as may be required by the rules or regulations of such exchange or market; *provided*, that, unless a prospectus supplement containing such information is required to be filed under the Securities Act, the requirement of this Section 7(l) may be satisfied by Company's inclusion in its Quarterly Reports on Form 10-Q or its Annual Report on Form 10-K, as applicable, the number of the Placement Shares sold through TD Cowen under this Agreement, the average price per Placement Share sold and the gross proceeds to the Company from the sale of the Placement Shares and the issuance costs of the Company with respect to sales of the Placement Shares pursuant to this Agreement during the relevant quarter or, in the case of an Annual Report on Form 10-K, during the fiscal year covered by such Annual Report and the fourth quarter of such fiscal year.

(m) Bring-Down Dates; Certificate. On or prior to the First Delivery Date and each time (i) the Company files the Prospectus relating to the Placement Shares or amends or supplements the Registration Statement or the Prospectus relating to the Placement Shares (other than a prospectus supplement filed in accordance with Section 7(l) of this Agreement) by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of document(s) by reference to the Registration Statement or the Prospectus relating to the Placement Shares; (ii) the Company files an Annual Report on Form 10-K under the Exchange Act; (iii) the Company files its Quarterly Reports on Form 10-Q under the Exchange Act; or (iv) the Company files a Current Report on Form 8-K containing amended financial information (other than an earnings release or other financial information "furnished" pursuant to Items 2.02 or 7.01 of Form 8-K) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a "**Bring-Down Date**"); the Company shall furnish TD Cowen with a certificate, in the form attached hereto as Exhibit 7(m) within one (1) Trading Day of any Bring-Down Date if requested by TD Cowen. The requirement to provide a certificate under this Section 7(m) shall be waived for any Bring-Down Date occurring at a time at which no Placement Notice is pending, which waiver shall continue until the earlier to occur of the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Bring-Down Date) and the next occurring Bring-Down Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Bring-Down Date when the Company relied on such waiver and did not provide TD Cowen with a certificate under this Section 7(m), then before the Company delivers the Placement Notice or TD Cowen sells any Placement Shares, the Company shall provide TD Cowen with a certificate, in the form attached hereto as Exhibit 7(m), dated the date of the Placement Notice.

(n) Legal Opinions. On or prior to the First Delivery Date and within one (1) Trading Day of each subsequent Bring-Down Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause to be furnished to TD Cowen a (i) written opinion and negative assurance letter of Gibson, Dunn & Crutcher LLP ("**Company Counsel**") or other counsel reasonably satisfactory to TD Cowen, in form and substance reasonably satisfactory to TD Cowen and its counsel, dated the date that the opinion is required to be delivered, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented, and (ii) written opinion of Greenberg Traurig, LLP, counsel for the Company with respect to intellectual property matters ("**IP Counsel**"), or other counsel reasonably satisfactory to TD Cowen, in form and substance reasonably satisfactory to TD Cowen and its counsel, dated the date that the opinion is required to be delivered; *provided*, *however*, that in lieu of such opinions or negative assurance letters for subsequent Bring-Down Dates, each such counsel may furnish TD Cowen with a letter (a "**Reliance Letter**") to the effect that TD Cowen may rely on a prior opinion delivered under this Section 7(n) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Bring-Down Date).

(o) Comfort Letters. On or prior to the First Delivery Date and within one (1) Trading Day of each subsequent Bring-Down Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause its independent accountants to furnish TD Cowen letters (the "**Comfort Letters**"), dated the date the Comfort Letters are delivered, in form and substance satisfactory to TD Cowen, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants' "comfort letters" to TD Cowen in connection with registered public offerings (the first of each such set of letters, the "**Initial Comfort Letters**") and (iii) updating the Initial Comfort Letters with any information that would have been included in the Initial Comfort Letters had they been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letters.

(p) Chief Financial Officer's Certificate. If applicable, on or prior to the First Delivery Date and within one (1) Trading Day of each subsequent Bring-Down Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall have delivered to TD Cowen a certificate executed by the Chief Financial Officer of the Company ("**CFO Certificate**"), dated as of such date, in form and substance satisfactory to TD Cowen.

(q) Market Activities. The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares or (ii) sell, bid for, or purchase the Common

Stock to be issued and sold pursuant to this Agreement, or pay anyone any compensation for soliciting purchases of the Placement Shares other than TD Cowen; *provided, however*, that the Company may bid for and purchase shares of its Common Stock in accordance with Rule 10b-18 under the Exchange Act.

(r) Insurance. The Company and its Subsidiaries shall maintain, or cause to be maintained, insurance in such amounts and covering such risks as is reasonable and customary for the business for which it is engaged.

(s) Compliance with Laws. The Company and each of its Subsidiaries shall maintain, or cause to be maintained, all material environmental permits, licenses and other authorizations required by federal, state and local law in order to conduct their businesses as described in the Prospectus, and the Company and each of its Subsidiaries shall conduct their businesses, or cause their businesses to be conducted, in substantial compliance with such permits, licenses and authorizations and with applicable environmental laws, except where the failure to maintain or be in compliance with such permits, licenses and authorizations could not reasonably be expected to result in a Material Adverse Change.

(t) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor its Subsidiaries will be or become, at any time prior to the termination of this Agreement, an “investment company,” as such term is defined in the Investment Company Act, assuming no change in the Commission’s current interpretation as to entities that are not considered an investment company.

(u) Securities Act and Exchange Act. The Company will use its reasonable best efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Shares as contemplated by the provisions hereof and the Prospectus.

(v) No Offer to Sell. Other than the Prospectus or a Permitted Free Writing Prospectus, neither TD Cowen nor the Company (including its agents and representatives, other than TD Cowen in its capacity as such) will make, use, prepare, authorize, approve or refer to any written communication (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy Common Stock hereunder.

(w) Sarbanes-Oxley Act. The Company and its Subsidiaries will use their reasonable best efforts to comply with all effective applicable provisions of the Sarbanes-Oxley Act.

(x) Affirmation. Each Placement Notice delivered by the Company to TD Cowen shall be deemed to be (i) an affirmation that the representations, warranties and agreements of the Company herein contained and contained in any certificate delivered to TD Cowen pursuant hereto are true and correct at the time of delivery of such Placement Notice, and (ii) an undertaking that such representations, warranties and agreements will be true and correct on any applicable Time of Sale and Settlement Date, as though made at and as of each such time (it being understood that such representations, warranties and agreements shall relate to the

Registration Statement and the Prospectus as amended and supplemented to the time of such Placement Notice acceptance).

8. Conditions to TD Cowen's Obligations. The obligations of TD Cowen hereunder with respect to a Placement Notice will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein, to the due performance by the Company of its obligations hereunder and thereunder, to the completion by TD Cowen of a due diligence review satisfactory to TD Cowen in its reasonable judgment, and to the continuing satisfaction (or waiver by TD Cowen in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Registration Statement shall be effective and shall be available for (i) all sales of Placement Shares issued pursuant to all prior Placement Notices and (ii) the sale of all Placement Shares contemplated to be issued pursuant to any Placement Notice.

(b) No Material Notices. None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its Subsidiaries of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus or such documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material 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.

(c) No Misstatement or Material Omission. TD Cowen shall not have advised the Company that the Registration Statement or Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in TD Cowen's reasonable opinion is material, or omits to state a fact that in TD Cowen's opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any material adverse change, on a consolidated basis, in the authorized capital stock of the Company or any Material

Adverse Change or any development that could reasonably be expected to result in a Material Adverse Change.

(e) Company Counsel Legal Opinion. TD Cowen shall have received the opinions of Company Counsel and IP Counsel required to be delivered pursuant to Section 7(n) on or before the date on which such delivery of such opinions is required pursuant to Section 7(n).

(f) TD Cowen Counsel Legal Opinion. TD Cowen shall have received from Covington & Burling LLP, counsel for TD Cowen, such opinion or opinions, on or before the date on which the delivery of the Company Counsel and IP Counsel legal opinions are required pursuant to Section 7(n), with respect to such matters as TD Cowen may reasonably require, and the Company shall have furnished to such counsel such documents as they request for enabling them to pass upon such matters.

(g) Comfort Letters. TD Cowen shall have received the Comfort Letters required to be delivered pursuant to Section 7(o) on or before the date on which such delivery of such Comfort Letters is required pursuant to Section 7(o).

(h) Representation Certificate. TD Cowen shall have received the certificate required to be delivered pursuant to Section 7(m) on or before the date on which delivery of such certificate is required pursuant to Section 7(m).

(i) Secretary's Certificate. On or prior to the First Delivery Date, TD Cowen shall have received a certificate, signed on behalf of the Company by its corporate secretary, in form and substance satisfactory to TD Cowen and its counsel.

(j) CFO Certificate. If applicable, TD Cowen shall have received the CFO Certificate required to be delivered pursuant to Section 7(p) on or before the date on which delivery of such certificate is required pursuant to Section 7(p).

(k) No Suspension. Trading in the Common Stock shall not have been suspended on Nasdaq.

(l) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(m), the Company shall have furnished to TD Cowen such appropriate further information, certificates and documents as TD Cowen may have reasonably requested. All such opinions, certificates, letters and other documents shall have been in compliance with the provisions hereof. The Company will furnish TD Cowen with such conformed copies of such opinions, certificates, letters and other documents as TD Cowen shall have reasonably requested.

(m) Securities Act Filings Made. All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(n) Approval for Listing. The Placement Shares shall either have been (i) approved for listing on Nasdaq, subject only to notice of issuance, or (ii) the Company shall have filed an application for listing of the Placement Shares on Nasdaq at, or prior to, the issuance of any Placement Notice.

(o) No Termination Event. There shall not have occurred any event that would permit TD Cowen to terminate this Agreement pursuant to Section 11(a).

9. Indemnification and Contribution.

(a) Company Indemnification. The Company agrees to indemnify and hold harmless TD Cowen, its affiliates and each of their respective directors, officers, partners, employees and agents of TD Cowen and each person, if any, who (i) controls TD Cowen within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, or (ii) is controlled by or is under common control with TD Cowen, from and against any and all losses, claims, liabilities, expenses and damages (including, but not limited to, any and all reasonable and documented investigative, legal and other expenses incurred in connection with, and any and all amounts paid in settlement (in accordance with Section 9(c)) of, any action, suit or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party, or otherwise, or any claim asserted), to which TD Cowen, or any such person, may become subject under the Securities Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based, directly or indirectly, on (x) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or the Prospectus or any amendment or supplement to the Registration Statement or the Prospectus or in any free writing prospectus or in any application or other document executed by or on behalf of the Company or based on written information furnished by or on behalf of the Company filed in any jurisdiction in order to qualify the Common Stock under the securities laws thereof or filed with the Commission, (y) the omission or alleged omission to state in any such document a material fact required to be stated in it or necessary to make the statements in it not misleading or (z) any breach by any of the indemnifying parties of any of their respective representations, warranties and agreements contained in this Agreement; *provided*, *however*, that this indemnity agreement shall not apply to the extent that such loss, claim, liability, expense or damage arises from the sale of the Placement Shares pursuant to this Agreement and is caused directly or indirectly by an untrue statement or omission, or alleged untrue statement or omission, made in reliance upon and in conformity with solely Agent's Information. "**Agent's Information**" means, solely, the following information in the Prospectus: the third sentence of the eighth paragraph under the caption "Plan of Distribution" in the Prospectus. This indemnity agreement will be in addition to any liability that the Company might otherwise have.

(b) TD Cowen Indemnification. TD Cowen agrees to indemnify and hold harmless the Company and its directors and each officer of the Company that signed the Registration Statement, and each person, if any, who (i) controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act or (ii) is controlled by or is under common control with the Company against any and all loss, liability, claim, damage and expense

described in the indemnity contained in Section 9(a), as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendments thereto) or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Agent's Information.

(c) Procedure. Any party that proposes to assert the right to be indemnified under this Section 9 will, promptly after receipt of written notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 9, notify in writing each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from (i) any liability that it might have to any indemnified party otherwise than under this Section 9 and (ii) any liability that it may have to any indemnified party under the foregoing provision of this Section 9 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable and documented costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (4) the indemnifying party has not in fact employed counsel to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable and documented fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable and documented fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party within 30 days after the indemnifying party receives a reasonably detailed written invoice relating to such fees, disbursements and other charges. An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party shall, without the prior written

consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 9 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding and does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 9 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or TD Cowen, the Company and TD Cowen will contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than TD Cowen, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and TD Cowen may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and TD Cowen on the other. The relative benefits received by the Company on the one hand and TD Cowen on the other hand shall be deemed to be in the same proportion as the total Net Proceeds from the sale of the Placement Shares (before deducting expenses) received by the Company bear to the total compensation received by TD Cowen from the sale of Placement Shares on behalf of the Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and TD Cowen, on the other hand, with respect to the statements or omission that resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to, among other things, whether the 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 or TD Cowen, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and TD Cowen agree that it would not be just and equitable if contributions pursuant to this Section 9(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense, or damage, or action in respect thereof, referred to above in this Section 9(d) shall be deemed to include, for the purpose of this Section 9(d), any reasonable and documented legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim to the extent consistent with Section 9(c) hereof. Notwithstanding the foregoing provisions of this Section 9(d), TD Cowen shall not be required to contribute any amount in excess of the commissions received by it under this Agreement and no person found guilty of fraudulent misrepresentation (within the meaning

of Section 11(f) of the Securities Act) will be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation. For purposes of this Section 9(d), any person who controls a party to this Agreement within the meaning of the Securities Act, and any officers, directors, partners, employees or agents of TD Cowen, will have the same rights to contribution as that party, and each director and officer of the Company who signed the Registration Statement will have the same rights to contribution as the Company, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 9(d), will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 9(d) except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of Section 9(c) hereof, no party will be liable for contribution with respect to any action or claim settled without its written consent if such consent is required pursuant to Section 9(c) hereof.

10. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 9 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto shall survive, as of their respective dates, regardless of (i) any investigation made by or on behalf of TD Cowen, any controlling persons, or the Company (or any of their respective officers, directors or controlling persons), (ii) delivery and acceptance of the Placement Shares and payment therefor or (iii) any termination of this Agreement.

11. Termination.

(a) TD Cowen shall have the right by giving written notice as hereinafter specified at any time to terminate this Agreement if (i) any Material Adverse Change, or any development that could reasonably be expected to result in a Material Adverse Change has occurred that, in the reasonable judgment of TD Cowen, may materially impair the ability of TD Cowen to sell the Placement Shares hereunder, (ii) the Company shall have failed, refused or been unable to perform any agreement on its part to be performed hereunder, (iii) any other condition of TD Cowen's obligations hereunder is not fulfilled or (iv) any suspension or limitation of trading in the Placement Shares or in securities generally on Nasdaq shall have occurred. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g) (Expenses), Section 9 (Indemnification and Contribution), Section 10 (Representations and Agreements to Survive Delivery), Section 16 (Applicable Law; Consent to Jurisdiction) and Section 17 (Waiver of Jury Trial) hereof shall remain in full force and effect notwithstanding such termination. If TD Cowen elects to terminate this Agreement as provided in this Section 11(a), TD Cowen shall provide the required notice as specified in Section 12 (Notices).

(b) The Company shall have the right, by giving ten (10) days' notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this

Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(c) TD Cowen shall have the right, by giving ten (10) days' notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 11, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Shares through TD Cowen on the terms and subject to the conditions set forth herein; *provided* that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(e) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 11(a), (b), (c) or (d) above or otherwise by mutual agreement of the parties; *provided, however,* that any such termination by mutual agreement shall in all cases be deemed to provide that Section 7(g), Section 9, Section 10, Section 16 and Section 17 shall remain in full force and effect. Upon termination of this Agreement, the Company shall not have any liability to TD Cowen for any discount, commission or other compensation with respect to any Placement Shares not otherwise sold by TD Cowen under this Agreement, except with respect to reimbursement of expenses actually incurred by TD Cowen, if any, to the extent provided for pursuant to Section 7(g)(vii) and Section 7(g)(viii).

(f) Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided, however,* that such termination shall not be effective until the close of business on the date of receipt of such notice by TD Cowen or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares shall settle in accordance with the provisions of this Agreement.

12. Notices. All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified in this Agreement, and if sent to TD Cowen, shall be delivered to TD Cowen at TD Securities (USA) LLC, 1 Vanderbilt Avenue, New York, NY 10017, fax no. 646-562-1130, Attention: General Counsel, email: CIBLegal@tdsecurities.com; or if sent to the Company, shall be delivered to the Company at 221 Crescent Street, Building 23, Suite 105, Waltham, MA 02453, attention: Scott Burrows, Chief Financial Officer, email: scott.burrows@spyre.com, with a copy to Gibson, Dunn & Crutcher LLP, One Embarcadero Center, Suite 2600, San Francisco, CA 94111, Attention: Branden C. Berns, email: bberns@gibsondunn.com. Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally on or before 4:30 p.m., New York City time, on a Business Day (as defined below), or, if such day is not a Business Day on the next succeeding Business Day, (ii) on the next Business Day after timely

delivery to a nationally-recognized overnight courier and (iii) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid). For purposes of this Agreement, "**Business Day**" shall mean any day on which the Nasdaq and commercial banks in the City of New York are open for business.

13. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Company and TD Cowen and their respective successors and the affiliates, controlling persons, officers and directors referred to in Section 9 hereof. References to any of the parties contained in this Agreement shall be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; *provided*, *however*, that TD Cowen may assign its rights and obligations hereunder to an affiliate of TD Cowen without obtaining the Company's consent.

14. Adjustments for Share Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement shall be adjusted to take into account any share split, share dividend or similar event effected with respect to the Common Stock.

15. Entire Agreement; Amendment; Severability. This Agreement (including all schedules and exhibits attached hereto and Placement Notices issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and TD Cowen; *provided*, that each party hereto may amend the list of individuals appearing under such party's name on Schedule 2 by giving notice to the other party hereto. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement.

16. Applicable Law; Consent to Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the principles of conflicts of laws. Each party hereby irrevocably submits to the non-exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan, for the adjudication of any dispute hereunder or in connection with any transaction contemplated hereby, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or

proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof (certified or registered mail, return receipt requested) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law.

17. Waiver of Jury Trial. The Company and TD Cowen each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this Agreement or any transaction contemplated hereby.

18. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) TD Cowen has been retained solely to act as an arm's length contractual counterparty to the Company in connection with the sale of the Placement Shares contemplated hereby and that no fiduciary, advisory or agency relationship between the Company and TD Cowen has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether TD Cowen has advised or is advising the Company on other matters;

(b) the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) the Company has been advised that TD Cowen and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that TD Cowen has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) the Company waives, to the fullest extent permitted by law, any claims it may have against TD Cowen, for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that TD Cowen shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, partners, employees or creditors of the Company.

19. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by electronic transmission (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com or www.echosign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

20. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that TD Cowen is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from TD Cowen of this

Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that TD Cowen is a Covered Entity and TD Cowen or a BHC Act Affiliate of TD Cowen becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against TD Cowen are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

(c) For purposes of this Section 20; (a) "**BHC Act Affiliate**" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k), (b) "**Covered Entity**" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b), (c) "**Default Right**" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable, and (d) "**U.S. Special Resolution Regime**" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

[Remainder of Page Intentionally Blank]

If the foregoing correctly sets forth the understanding between the Company and TD Cowen, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and TD Cowen.

Very truly yours,

TD SECURITIES (USA) LLC

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

ACCEPTED as of the date first-above written:

SPYRE THERAPEUTICS, INC.

By: /s/ Scott Burrows
Name: Scott Burrows
Title: Chief Financial Officer

SCHEDULE 1

FORM OF PLACEMENT NOTICE

From:	[ ]
Cc:	[ ]
To:	[ ]
Subject:	TD Cowen At the Market Offering—Placement Notice

To Whom It May Concern:

Pursuant to the terms and subject to the conditions contained in the Sales Agreement between Spyre Therapeutics, Inc., a Delaware corporation (the "Company"), and TD Securities (USA) LLC ("TD Cowen") dated September 6, 2024 (the "Agreement"), I hereby request on behalf of the Company that TD Cowen sell up to [●] shares of the Company's common stock, par value $0.0001 per share, at a minimum market price of $[●] per share. Sales should begin on the date of this Notice and shall continue until [DATE] [all shares are sold].

SCHEDULE 2

Notice Parties

Company

Cameron Turtle	Chief Executive Officer
Scott Burrows	Chief Financial Officer
Jonathan Campbell	VP, Corporate Controller
Heidy King-Jones	Chief Legal Officer and Corporate Secretary

TD Cowen

Michael J. Murphy	Managing Director
William Follis	Managing Director
Adriano Pierroz	Director
Megan Sanford	Analyst

SCHEDULE 3

Compensation

TD Cowen shall be paid compensation up to 3.0% of the gross proceeds from the sales of Common Stock pursuant to the terms of this Agreement.

Exhibit 7(m)

OFFICER CERTIFICATE

The undersigned, the duly qualified and elected [●], of Spyre Therapeutics, Inc. ("**Company**"), a Delaware corporation, does hereby certify in such capacity and on behalf of the Company, pursuant to Section 7(m) of the Sales Agreement dated September 6, 2024 (the "**Sales Agreement**") between the Company and TD Securities (USA) LLC, that to the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 6 of the Sales Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Change, 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, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date; and

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

By:________________________________
Name:
Title:

Date:__________________

Exhibit 4.2

SPYRE THERAPEUTICS, INC.

Debt Securities

Indenture

Dated as of , 202

[ ],

as Trustee

CROSS-REFERENCE TABLE

This Cross-Reference Table is not a part of the Indenture

TIA Section	Indenture Section
310(a)(1)	7.10
(a)(2)	7.10
(a)(3)	N.A.
(a)(4)	N.A.
(b)	7.08; 7.10; 12.02
311(a)	7.11
(b)	7.11
(c)	N.A.
312(a)	2.05
(b)	12.03
(c)	12.03
313(a)	7.06
(b)(1)	N.A.
(b)(2)	7.06
(c)	12.02
(d)	7.06
314(a)	4.03; 12.02
(b)	N.A.
(c)(1)	12.04
(c)(2)	12.04
(c)(3)	N.A.
(d)	N.A.
(e)	12.05
315(a)	7.01(b)
(b)	7.05; 12.02
(c)	7.01(a)
(d)	7.01(c)
(e)	6.11
316(a)(last sentence)	12.06
(a)(1)(A)	6.05
(a)(1)(B)	6.04
(a)(2)	N.A.
(b)	6.07
317(a)(1)	6.08
(a)(2)	6.09
(b)d	2.04
318(a)	12.01

N.A. means Not Applicable.

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EXHIBIT A – Form of Security

INDENTURE dated as of , 202 , (the "**Base Indenture**"), by and among **SPYRE THERAPEUTICS, INC.**, a Delaware corporation (the "**Company**") and **[ ]**, as trustee (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 Company's debt securities issued under this Base Indenture:

ARTICLE ONE
DEFINITIONS AND INCORPORATION BY REFERENCE

Section 1.01 **Definitions.**

"**Affiliate**" means, when used with reference to a specified person, any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Person specified.

"**Agent**" means any Registrar, Paying Agent or co-Registrar or agent for service of notices and demands.

"**Authorizing Resolution**" means a resolution adopted by the Board of Directors or by an Officer or committee of Officers pursuant to Board delegation authorizing a Series of Securities.

"**Bankruptcy Law**" means Title 11 of the United States Code, as amended, or any similar federal or state law for the relief of debtors.

"**Board of Directors**" means the Board of Directors of the Company or any duly authorized committee thereof.

"**Capital Stock**" means, with respect to any Person, any and all shares, interests, participations or other equivalents (however designated) of or in such Person's capital stock or other equity interests.

"**Company**" means the party named as such in this Indenture until a successor replaces it pursuant to the Indenture and thereafter means the successor.

"**control**" means, when used with respect to any Person, 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.

"**Default**" means any event, act or condition that is, or after notice or the passage of time or both would be, an Event of Default.

"**Definitive Security**" means a certificated Security registered in the name of the Securityholder thereof.

"**Depositary**" means, with respect to Securities of any Series which the Company shall determine will be issued in whole or in part as a Global Security, DTC, another clearing agency, or any successor registered as a clearing agency under the Exchange Act, and any other applicable U.S. or foreign statute or regulation, which, in each case, shall be designated by the Company pursuant to Section 2.01.

"**Dollars**" and "**$**" mean United States Dollars.

"**DTC**" means The Depository Trust Company, New York, New York.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

“**Foreign Currency**” means any currency, currency unit or composite currency, including, without limitation, the Euro, issued by the government of one or more countries other than the United States of America or by any recognized confederation or association of such governments.

“**GAAP**” means generally accepted accounting principles set forth in the accounting standards codification of the Financial Accounting Standards Board or in such other statements by such or any other entity as may be approved by a significant segment of the accounting profession of the United States, as in effect on the date of this Base Indenture.

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

“**Government Obligations**” means securities which are (i) direct obligations of the United States or the other government or governments in the confederation which issued the Foreign Currency in which the principal of or any interest on the Security of the applicable Series shall be payable, in each case for the payment of which its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States or such other government or governments, in each case the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States or such other government or governments, which, in either case are not callable or redeemable at the option of the issuer or issuers thereof, and shall also include a depositary receipt issued by a bank or trust company as custodian with respect to any such Government Obligations or a specific payment of interest on or principal of any such Government Obligation held by such custodian for the account of the holder of a depositary receipt; *provided* that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Government Obligation or the specific payment of interest on or principal of the Government Obligation evidenced by such depositary receipt.

“**Holder**” or “**Securityholder**” means the Person in whose name a Security is registered on the Registrar’s books.

“**Indenture**” means this Base Indenture as amended or supplemented from time to time, including pursuant to any Authorizing Resolution or supplemental indenture pertaining to any Series, and including, for all purposes of this instrument and any such Authorizing Resolution or supplemental indenture, the provisions of the TIA that are deemed to be a part of and govern this Base Indenture and any such Authorizing Resolution or supplemental indenture, respectively.

“**Issue Date**” means, with respect to any Series of Securities, the date on which the Securities of such Series are originally issued under this Indenture.

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

“**Officer**” means the Chairman of the Board, the President, any Vice President, the Treasurer, the Controller or the Secretary of the Company.

“**Officers’ Certificate**” means a certificate signed by two Officers or by an Officer and an Assistant Treasurer or an Assistant Secretary of the Company.

“**Opinion of Counsel**” means a written opinion, in form and substance reasonably satisfactory to the Trustee, from legal counsel. The counsel may be an employee of or counsel to the Company. Each such opinion shall include the statements provided for in Section 12.05 if and to the extent required by the provisions of such Section.

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

“**principal**” of a debt security means the principal of the security *plus*, when appropriate, the premium, if any, on the security.

“**Property**” of any Person means all types of real, personal, tangible, intangible or mixed property owned by such Person, whether or not included in the most recent consolidated balance sheet of such Person and its Subsidiaries under GAAP.

“**SEC**” means the Securities and Exchange Commission or any successor agency performing the duties now assigned to it under the TIA.

“**Securities**” means any Securities that are issued under this Base Indenture.

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

“**Series**” means a series of Securities established under this Base Indenture.

“**Significant Subsidiary**” means any Subsidiary of the Company which would constitute a “significant subsidiary” as defined in Rule 1-02 of Regulation S-X under the Securities Act and the Exchange Act.

“**Subsidiary**” of any Person means any corporation or other entity of which a majority of the Capital Stock having ordinary voting power to elect a majority of the board of directors of such entity or other persons performing similar functions is at the time directly or indirectly owned or controlled by such Person.

“**TIA**” means the Trust Indenture Act of 1939, as in effect from time to time, except as otherwise provided herein.

“**Trustee**” means the party named as such in this Base Indenture until a successor replaces it pursuant to this Base Indenture and thereafter means the successor serving hereunder; *provided*, *however*, that if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any Series shall mean only the Trustee with respect to Securities of that Series.

“**Trust Officer**” means, when used with respect to the Trustee, any officer within the corporate trust department of the Trustee, including any vice president, assistant vice president, assistant secretary, senior associate, associate, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers or to whom any corporate trust matter is referred because of such person’s knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“**United States**” means the United States of America.

Section 1.02 Other Definitions.

Term	Defined in Section
Agent Members	2.15
Base Indenture	Preamble
Business Day	12.07
Covenant Defeasance	8.01
Custodian	6.01
Event of Default	6.01
Legal Defeasance	8.01
Legal Holiday	12.07
Paying Agent	2.03
Payment Default	6.01
Registrar	2.03
Security Register	2.03
Successor	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 of a particular Series.

"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 or any other obligor on the Securities of a Series.

All other TIA terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule have the meanings so assigned to them.

Section 1.04 Rules of Construction.

Unless the context otherwise requires:

(1) a term has the meaning assigned to it herein;
(2) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP and all accounting determinations shall be made in accordance with GAAP;
(3) "or" is not exclusive and "including" means "including without limitation";
(4) words in the singular include the plural, and in the plural include the singular;
(5) "herein," "hereof" and "hereunder," and other words of similar import, refer to this Indenture as a whole (including any Authorizing Resolution or supplemental indenture relating to the relevant Series) and not to any particular Article, Section or other subdivision;
(6) all exhibits are incorporated by reference herein and expressly made a part of this Indenture; and
(7) any transaction or event shall be considered "permitted by" or made "in accordance with" or "in compliance with" this Indenture or any particular provision thereof if such transaction or event is not expressly prohibited by this Indenture or such provision, as the case may be.

ARTICLE TWO
THE SECURITIES

Section 2.01 **Form and Dating.**

The aggregate principal amount of Securities that may be issued under this Base Indenture is unlimited. The Securities may be issued from time to time in one or more Series. Each Series shall be created by an Authorizing Resolution or a supplemental indenture that establishes the terms of the Series, which may include the following:

(1) the title of the Series (which shall distinguish the Securities of such Series from all other Securities);

(2) the aggregate principal amount (or any limit on the aggregate principal amount) of the Series and, if any Securities of a Series are to be issued at a discount from their face amount, the method of computing the accretion of such discount;

(3) the interest rate or method of calculation of the interest rate;

(4) the date from which interest will accrue;

(5) the record dates for interest payable on Securities of the Series;

(6) the dates when, places where and manner in which principal and interest are payable;

(7) the Registrar and Paying Agent;

(8) the terms of any mandatory (including any sinking fund requirements) or optional redemption by the Company;

(9) the terms of any redemption at the option of Holders;

(10) the permissible denominations in which Securities of such Series are issuable, if different from $2,000 and multiples of $1,000 in excess thereof;

(11) whether Securities of such Series will be issued in registered or bearer form and the terms of any such forms of Securities;

(12) whether the Securities of the Series shall be issued in whole or in part in the form of a Global Security or Securities, the terms and conditions, if different from those contained in this Base Indenture, upon which such Global Security or Securities may be exchanged in whole or in part for Definitive Securities; the Depositary for such Global Security or Securities; and the form of any legend or legends, if any, to be borne by any such Global Security or Securities in addition to or in lieu of the legends referred to in Section 2.15;

(13) the currency or currencies (including any composite currency) in which principal or interest or both may be paid;

(14) if payments of principal or interest may be made in a currency other than that in which Securities of such Series are denominated, the manner for determining such payments, including the time and manner of determining the exchange rate between the currency in which such Securities are denominated and the currency in which such Securities or any of them may be paid, and any deletions from or modifications of or additions to the terms of this Indenture to provide for or to facilitate the issuance of Securities denominated or payable, at the election of the Company or a Holder thereof or otherwise, in a Foreign Currency;

(15) provisions for electronic issuance of Securities or issuance of Securities of such Series in uncertificated form;

(16) any Events of Default, covenants and/or defined terms in addition to or in lieu of those set forth in this Base Indenture;

(17) whether and upon what terms Securities of such Series may be defeased or discharged if different from the provisions set forth in this Base Indenture;

(18) the form of the Securities of such Series, which, unless the Authorizing Resolution or supplemental indenture otherwise provides, shall be in the form of Exhibit A;

(19) any terms that may be required by or advisable under applicable law;

(20) the percentage of the principal amount of the Securities of such Series which is payable if the maturity of the Securities of such Series is accelerated in the case of Securities issued at a discount from their face amount;

(21) whether Securities of such Series will or will not have the benefit of guarantees and the Company's Subsidiaries that will be the initial guarantors of such Series and, if applicable, the terms and conditions upon which such guarantees may be subordinated to other indebtedness of the respective guarantors;

(22) whether the Securities of such Series are senior or subordinated debt securities, and if subordinated debt securities, the terms of such subordination;

(23) whether the Securities of the Series will be convertible into or exchangeable for other Securities, common shares or other securities of any kind of the Company or another obligor, and, if so, the terms and conditions upon which such Securities will be so convertible or exchangeable, including the initial conversion or exchange price or rate or the method of calculation, how and when the conversion price or exchange ratio may be adjusted, whether conversion or exchange is mandatory, at the option of the holder or at the Company's option, the conversion or exchange period, and any other provision in relation thereto; and

(24) any other terms in addition to or different from those contained in this Base Indenture applicable to such Series.

All Securities of one Series need not be issued at the same time and, unless otherwise provided, a Series may be reopened for issuances of additional Securities of such Series pursuant to an Authorizing Resolution, an Officers' Certificate or in any indenture supplemental hereto.

The creation and issuance of a Series and the authentication and delivery thereof are not subject to any conditions precedent.

Section 2.02 Execution and Authentication.

One Officer 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 Trustee authenticates the Security, the Security shall nevertheless be valid.

A Security shall not be valid until the Trustee manually signs the certificate of authentication on the Security. The signature shall be conclusive evidence that the Security has been authenticated under this Base Indenture.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication. Each Security shall be dated the date of its authentication. The Trustee shall authenticate Securities for original issue upon receipt of, and shall be fully protected in relying upon:

(a) an order to the Trustee signed by an officer of the Company directing the Trustee to authenticate the Securities;

(b) a copy of the resolution or resolutions of the Board of Directors in or pursuant to which the terms and form of the Securities were established, certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect as of the date of such certificate, and if the terms and form of such Securities are established by an Officers' Certificate pursuant to general authorization of the Board of Directors, such Officers' Certificate;

(c) an Officers' Certificate of the Company delivered in accordance with Section 12.04; and

(d) an Opinion of Counsel delivered in accordance with Section 12.04.

The Trustee shall have the right to decline to authenticate and deliver any Securities under this Section if the Trustee, being advised by counsel, determines that such action may not lawfully be taken or if the Trustee in good faith shall determine that such action would expose the Trustee to personal liability to existing Holders.

Section 2.03 Registrar and Paying Agent.

The Company shall maintain an office or agency where Securities may be presented for registration of transfer or where Securities of a Series that are convertible or exchangeable may be surrendered for conversion or exchange ("**Registrar**"), an office or agency where Securities may be presented for payment ("**Paying Agent**") and an office or agency where notices and demands to or upon the Company in respect of the Securities and this Indenture may be

served. The Registrar shall keep a register of the Securities and of their transfer and exchange (the "**Security Register**"). The Company may have one or more co-Registrars and one or more additional paying agents. The term "Paying Agent" includes any additional paying agent.

The Company shall enter into an appropriate agency agreement with any Agent not a party to this Base Indenture. The agreement shall implement the provisions of this Indenture that relate to such Agent. The Company shall promptly notify the Trustee in writing of the name and address of any such Agent and the Trustee shall have the right to inspect the Securities Register at all reasonable times to obtain copies thereof, and the Trustee shall have the right to rely upon such register as to the names and addresses of the Holders and the principal amounts and certificate numbers thereof. If the Company fails to maintain a Registrar or Paying Agent or fails to give the foregoing notice, the Trustee shall act as such.

The Company initially appoints the Trustee as Registrar and Paying Agent.

Section 2.04 Paying Agent to Hold Money in Trust.

Each Paying Agent shall hold in trust for the benefit of Securityholders and the Trustee all money held by the Paying Agent for the payment of principal of or interest on the Securities, and shall notify the Trustee of any default by the Company in making any such payment. If the Company or a Subsidiary acts as Paying Agent, it shall segregate the money and hold it as a separate trust fund. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon doing so the Paying Agent shall have no further liability for the money.

Section 2.05 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. If the Trustee is not the Registrar, the Company shall furnish to the Trustee at least five (5) Business Days before each semiannual interest payment date 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.

Section 2.06 Transfer and Exchange.

Where a Security is presented to the Registrar or a co-Registrar with a request to register a transfer, the Registrar shall register the transfer as requested if the requirements of Section 8-401(a) of the NYUCC are met and the other provisions of this Section 2.06 are satisfied. Where Securities are presented to the Registrar or a co-Registrar with a request to exchange them for an equal principal amount of Securities of other denominations, the Registrar shall make the exchange as requested if the same requirements are met. To permit transfers and exchanges, the Trustee shall authenticate Securities at the Registrar's request. The Registrar need not transfer or exchange any Security selected for redemption or repurchase, except the unredeemed or repurchased part thereof if the Security is redeemed or repurchased in part, or transfer or exchange any Securities for a period of 15 days before a selection of Securities to be redeemed or repurchased. Any exchange or transfer shall be without charge, except that the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto except in the case of exchanges pursuant to 2.09, 3.06, or 10.05 not involving any transfer.

Any Holder of a Global Security shall, by acceptance of such Global Security, agree that transfers of beneficial interests in such Global Security may be effected only through a book entry system maintained by the Holder of such Global Security (or its agent), and that ownership of a beneficial interest in the Security shall be required to be reflected in a book entry.

Section 2.07 Replacement Securities.

If the Holder of a Security claims that the Security has been lost, destroyed, mutilated or wrongfully taken, the Company shall issue and execute a replacement security and, upon written request of any Officer of the Company, the Trustee shall authenticate such replacement Security, *provided*, in the case of a lost, destroyed or wrongfully taken Security, that the requirements of Section 8-405 of the NYUCC are met. If any such lost, destroyed, mutilated or wrongfully taken Security shall have matured or shall be about to mature, the Company may, instead of issuing a substitute Security therefor, pay such Security without requiring (except in the case of a mutilated Security) the surrender thereof. An indemnity bond must be sufficient in the judgment of the Company and the Trustee to protect the Company, the Trustee and any Agent from any loss which any of them may suffer if a Security is replaced, including the acquisition of such Security by a bona fide purchaser. The Company and the Trustee may charge for its expenses in replacing a Security.

Section 2.08 Outstanding Securities.

Securities outstanding at any time are all Securities authenticated by the Trustee except for those cancelled by it and those described in this Section. A Security does not cease to be outstanding because the Company or one of its Affiliates holds the Security.

If a Security is replaced pursuant to Section 2.07, it ceases to be outstanding unless the Trustee receives proof satisfactory to it that the replaced Security is held by a "protected purchaser" (as such term is defined in the NYUCC).

If the Paying Agent holds on a redemption date, purchase date or maturity date money sufficient to pay Securities payable on that date, then on and after that date such Securities cease to be outstanding and interest on them ceases to accrue.

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

Section 2.09 Temporary Securities.

Until Definitive Securities are ready for delivery, the Company may prepare and the Trustee shall authenticate temporary Securities. Temporary Securities shall be substantially in the form of Definitive Securities but may have variations that the Company considers appropriate for temporary Securities. Without unreasonable delay, the Company shall prepare and, upon surrender for cancellation of the temporary Security, the Company shall execute and the Trustee shall authenticate Definitive Securities in exchange for temporary Securities. Until so exchanged, the temporary Securities shall in all respects be entitled to the same benefits under this Indenture as Definitive Securities authenticated and delivered hereunder.

Section 2.10 Cancellation.

The Company at any time may deliver Securities to the Trustee for cancellation. The Registrar and Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange, redemption, purchase or payment. The Trustee and no one else shall cancel and dispose of such cancelled or tendered securities, or retain in accordance with its standard retention policy, all Securities surrendered for registration of transfer, exchange, redemption, purchase, payment or cancellation. Unless the Authorizing Resolution or supplemental indenture so provides, the Company may not issue new Securities to replace Securities that it has previously paid or delivered to the Trustee for cancellation.

Section 2.11 **Defaulted Interest.**

If the Company defaults in a payment of interest on the Securities of any Series, it shall pay the defaulted interest *plus* any interest payable on the defaulted interest to the persons who are Securityholders of such Series on a subsequent special record date. The Company shall fix such special record date and a payment date which shall be reasonably satisfactory to the Trustee. At least 15 days before such special record date, the Company shall mail to each Securityholder of the relevant Series a notice that states the record date, the payment date and the amount of defaulted interest to be paid. On or before the date such notice is mailed, the Company shall deposit with the Paying Agent money sufficient to pay the amount of defaulted interest to be so paid. The Company may pay defaulted interest in any other lawful manner if, after notice given by the Company to the Trustee of the proposed payment, such manner of payment shall be deemed practicable by the Trustee.

Section 2.12 **Treasury Securities.**

In determining whether the Holders of the required principal amount of Securities of a Series have concurred in any direction, waiver, consent or notice, Securities owned by the Company or any of its Affiliates shall be considered as though they are not 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 which a Trust Officer of the Trustee actually knows are so owned shall be so considered.

Section 2.13 **CUSIP/ISIN Numbers.**

The Company in issuing the Securities of any Series may use a "CUSIP" and/or "ISIN" or other similar number, and if so, the Trustee shall use the CUSIP and/or ISIN or other similar number in notices of redemption or exchange as a convenience to Holders of such Securities; *provided* that no representation is hereby deemed to be made by the Trustee as to the correctness or accuracy of any such CUSIP and/or ISIN or other similar number printed in the notice or on such Securities, and that reliance may be placed only on the other identification numbers printed on such Securities. The Company shall promptly notify the Trustee of any change in any CUSIP and/or ISIN or other similar number.

Section 2.14 **Deposit of Moneys.**

Prior to 11:00 a.m., New York City time, on each interest payment date and maturity date with respect to each Series of Securities, the Company shall have deposited with the Paying Agent in immediately available funds money in the applicable currency sufficient to make cash payments due on such interest payment date or maturity date, as the case may be, in a timely manner which permits the Paying Agent to remit payment to the Holders of such Series on such interest payment date or maturity date, as the case may be.

Section 2.15 **Book-Entry Provisions for Global Security.**

(a) Any Global Security of a Series initially shall (i) be registered in the name of the Depositary or the nominee of such Depositary, (ii) be delivered to the Trustee as custodian for such Depositary and (iii) bear any required legends.

Members of, or participants in, the Depositary ("**Agent Members**") shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depositary, or the Trustee as its custodian, or under the Global Security, and the Depositary may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner of the Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Trustee or any agent of the Company or the Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and its Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

(b) Transfers of any Global Security shall be limited to transfers in whole, but not in part, to the Depositary, its successors or their respective nominees. Interests of beneficial owners in the Global Security may be transferred or exchanged for Definitive Securities in accordance with the rules and procedures of the Depositary. In addition, Definitive Securities shall be transferred to all beneficial owners in exchange for their beneficial interests in a Global Security if (i) the Depositary notifies the Company that it is unwilling or unable to continue as Depositary for the Global Security or the Depositary has ceased to be a "clearing agency" registered under the Exchange Act, and a successor depository is not appointed by the Company within 90 days of such notice, or (ii) the Company elects, at any time in its sole discretion, to discontinue use of the system of book entry transfer through any Depositary. Any Security that is held in the form of a Global Security and that is exchanged pursuant to clause (i) above shall be so exchanged in whole and not in part, and any Security that is held in the form of a Global Security and that is exchanged pursuant to clause (ii) above may be exchanged in whole or from time to time in part as directed by the Company.

(c) In connection with any transfer or exchange of a portion of the beneficial interest in any Global Security to beneficial owners pursuant to paragraph (b), the Registrar shall (if one or more Definitive Securities are to be issued) reflect on its books and records the date and a decrease in the principal amount of the Global Security in an amount equal to the principal amount of the beneficial interest in the Global Security to be transferred, and the Company shall execute, and the Trustee shall authenticate and deliver, one or more Definitive Securities of like Series and amount.

(d) In connection with the transfer of an entire Global Security to beneficial owners pursuant to paragraph (b), the Global Security shall be deemed to be surrendered to the Trustee for cancellation, and the Company shall execute, and the Trustee shall authenticate and deliver, to each beneficial owner identified by the Depositary in exchange for its beneficial interest in the Global Security, an equal aggregate principal amount of Definitive Securities of the same Series in authorized denominations.

(e) The Holder of any Global Security may grant proxies and otherwise authorize any person, including Agent Members and persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under this Indenture or the Securities of such Series.

(f) Unless otherwise provided in the Authorizing Resolution or supplemental indenture for a particular Series of Securities, each Global Security of such Series shall bear legends in substantially the following forms:

"THIS GLOBAL SECURITY IS HELD BY THE DEPOSITARY (AS DEFINED IN THE INDENTURE GOVERNING THIS SECURITY) OR ITS NOMINEE IN CUSTODY FOR THE BENEFIT OF THE HOLDERS OF BENEFICIAL INTERESTS HEREIN, AND IS NOT TRANSFERABLE TO ANY PERSON UNDER ANY CIRCUMSTANCES EXCEPT THAT (I) THE TRUSTEE MAY MAKE ANY SUCH NOTATIONS HEREON AS MAY BE REQUIRED PURSUANT TO THE INDENTURE, (II) THIS GLOBAL SECURITY MAY BE EXCHANGED IN WHOLE BUT NOT IN PART PURSUANT TO SECTION 2.06 AND SECTION 2.15 OF THE INDENTURE, (III) THIS GLOBAL SECURITY MAY BE DELIVERED TO THE TRUSTEE FOR CANCELLATION PURSUANT TO THE INDENTURE AND (IV) THIS GLOBAL SECURITY MAY BE TRANSFERRED TO A SUCCESSOR DEPOSITARY WITH THE PRIOR WRITTEN CONSENT OF THE COMPANY."

"UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE FORM, THIS SECURITY MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR TO ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY. UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE, OR PAYMENT, ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO

SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN."

Section 2.16 No Duty to Monitor.

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

Neither the Trustee nor any Agent shall have any responsibility for any actions taken or not taken by the Depositary.

ARTICLE THREE
REDEMPTION

Section 3.01 Notices to Trustee.

Securities of a Series that are redeemable prior to maturity shall be redeemable in accordance with their terms and, unless the Authorizing Resolution or supplemental indenture provides otherwise, in accordance with this Article Three.

If the Company wants to redeem Securities pursuant to Paragraph 4 of the Securities, it shall notify the Trustee in writing of the redemption date and the principal amount of Securities to be redeemed. Any such notice may be cancelled at any time prior to notice of such redemption being mailed to Holders. Any such cancelled notice shall be void and of no effect.

If the Company wants to credit any Securities previously redeemed, retired or acquired against any redemption pursuant to Paragraph 5 of the Securities, it shall notify the Trustee of the amount of the credit and it shall deliver any Securities not previously delivered to the Trustee for cancellation with such notice.

The Company shall give each notice provided for in this Section 3.01 at least 30 days before the notice of any such redemption is to be delivered to Holders (unless a shorter notice shall be satisfactory to the Trustee).

Section 3.02 Selection of Securities to be Redeemed.

If fewer than all of the Securities of a Series are to be redeemed, the Trustee (or depository, as applicable) shall select the Securities to be redeemed by lot, pro rata, or such other method the Trustee (or depository, as applicable) considers fair and appropriate and in a manner that complies with applicable requirements of the Depositary. The Trustee (or depository, as applicable) shall make the selection from Securities outstanding not previously called for redemption and shall promptly notify the Company of the serial numbers or other identifying attributes of the Securities so selected. The Trustee (or depository, as applicable) may select for redemption portions of the principal of Securities that have denominations larger than the minimum denomination for the Series. Securities and portions of them it selects shall be in amounts equal to a permissible denomination for the Series. Provisions of this Indenture that apply to Securities called for redemption also apply to portions of Securities called for redemption.

Unless otherwise provided in the Authorizing Resolution or supplemental indenture relating to a Series, if any Security selected for partial redemption is converted into or exchanged for the Company's Capital Stock or other securities, cash or other property in part before termination of the conversion or exchange right with respect to the

portion of the Security so selected, the converted portion of such Security shall be deemed (so far as may be) to be the portion selected for redemption. Securities which have been converted or exchanged during a selection of Securities to be redeemed shall be treated by the Trustee as outstanding for the purpose of such selection.

Section 3.03 **Notice of Redemption.**

At least 30 days but not more than 60 days before a redemption date, the Company shall mail a notice of redemption by first-class mail, postage prepaid, to each Holder of Securities to be redeemed.

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

(1) the redemption date;
(2) the redemption price or the formula pursuant to which such price will be calculated;
(3) if any Security is being redeemed in part, the portion of the principal amount of such Security to be redeemed and that, after the redemption date, upon surrender of such Security, a new Security or Securities in principal amount equal to the unredeemed portion shall be issued upon cancellation of the original Security;
(4) in the case of Securities of a Series that are convertible or exchangeable into shares of the Company's Capital Stock or other securities, cash or other property, the conversion or exchange price or rate, the date or dates on which the right to convert or exchange the principal of the Securities of such Series to be redeemed will commence or terminate and the place or places where such Securities may be surrendered for conversion or exchange;
(5) the name and address of the Paying Agent;
(6) that Securities called for redemption must be surrendered to the Paying Agent to collect the redemption price;
(7) that interest on Securities called for redemption ceases to accrue on and after the redemption date;
(8) that the Securities are being redeemed pursuant to the mandatory redemption or the optional redemption provisions, as applicable; and
(9) the CUSIP number and/or ISIN or other similar number used to identify the Securities, that no representation is hereby deemed to be made be made by the Trustee as to the correctness or accuracy of any such CUSIP and/or ISIN or other similar number printed in the notice or on such Securities, and that reliance may be placed only on the other identification numbers printed on such Securities.

At the Company's request, the Trustee shall give the notice of redemption in the Company's name and at its expense; *provided*, *however*, that the Company shall deliver to the Trustee at least 15 days prior to the date on which notice of redemption is to be mailed or such shorter period as may be satisfactory to the Trustee, an Officers' Certificate requesting that the Trustee give such notice and setting forth the information to be stated in such notice as provided in the preceding paragraph.

Section 3.04 **Effect of Notice of Redemption.**

Once notice of redemption is mailed, Securities called for redemption become due and payable on the redemption date and at the redemption price as set forth in the notice of redemption, which notice, and which obligation to redeem such Securities, may, at the Company's discretion, be subject to one or more conditions precedent as set forth in such notice. Upon surrender to the Paying Agent, such Securities shall be paid at the redemption price, *plus* accrued and unpaid interest to the redemption date.

Section 3.05 **Deposit of Redemption Price.**

On or before the redemption date, the Company shall deposit with the Paying Agent immediately available funds in the applicable currency sufficient to pay the redemption price of and accrued interest 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 Company shall execute and the Trustee shall authenticate for each Holder a new Security of the same Series equal in principal amount to the unredeemed portion of the Security surrendered.

ARTICLE FOUR
COVENANTS

Section 4.01 Payment of Securities.

The Company shall pay the principal of, premium, if any, and interest on a Series on the dates, in the currency and in the manner provided in the Securities of the Series. An installment of principal, premium, if any, or interest shall be considered paid on the date it is due if the Paying Agent holds on that date money in the applicable currency designated for and sufficient to pay the installment.

Section 4.02 Maintenance of Office or Agency.

The Company shall maintain the office or agency required under Section 2.03. The Company shall give prior written notice to the Trustee of the location, and any change in the location, of such office or agency. 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 address of the Trustee.

Section 4.03 Reports.

At any time when the Company is subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, the Company shall file with the Trustee, within fifteen (15) days after it actually files the same with the SEC (regardless of when the same is required to be filed with the SEC), each annual, quarterly or current report, information or proxy statement other report which the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act; *provided*, *however*, that the Company shall not be required to file or deliver to the Trustee any material for which the Company has sought and received, or is seeking, confidential treatment by the SEC; and, *provided further*, that the Company shall be deemed to have filed such information with the Trustee if the Company has filed such information on the SEC's EDGAR system (or any successor system) and such information is publicly available. The Company also shall comply with the other provisions of TIA Section 314(a). The Trustee does not have the duty to review such information, documents or reports, is not considered to have notice of the content of such information, documents or reports and does not have a duty to verify the accuracy of such information, documents or reports.

Section 4.04 Compliance Certificate.

The Company shall deliver to the Trustee within 120 days after the end of each fiscal year of the Company an Officers' Certificate stating whether or not the signers know of any continuing Default by the Company in performing any of its obligations under this Indenture. If they do know of such a Default, the certificate shall describe the Default. In addition, the Company will notify the Trustee within 5 business days upon the Company's knowledge of a Default.

Section 4.05 Waiver of Stay, Extension or 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 or extension law or any usury law or other law that would prohibit or forgive the Company from paying all or any portion of the principal of or interest on the Securities of any Series as contemplated herein, wherever enacted, now or at any time hereafter in force, or which may affect the covenants or the performance of this Indenture; and (to the extent that it may lawfully do so)

the Company expressly waives all benefit or advantage of any such law, and covenants that it will not 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 had been enacted.

ARTICLE FIVE
SUCCESSOR CORPORATION

Section 5.01 **When Company May Merge, etc.**

The Company will not consolidate or merge with or into, or sell, lease, convey or otherwise dispose of all or substantially all of its assets (including by way of liquidation or dissolution), to any Person (in each case other than in a transaction in which the Company is the survivor of a consolidation or merger, or the transferee in a sale, lease, conveyance or other disposition) unless:

(1) the Person formed by or surviving such consolidation or merger (if other than the Company), or to which such sale, lease, conveyance or other disposition will be made (collectively, the "**Successor**") assumes by supplemental indenture in a form reasonably satisfactory to the Trustee all of the obligations of the Company under the Securities, as the case may be, and the Indenture, and

(2) immediately after giving effect to such transaction, no Default or Event of Default has occurred and is continuing.

The foregoing provisions shall not apply to a transaction the purpose of which is to change the state of incorporation of the Company.

Upon any such consolidation, merger, sale, lease, conveyance or other disposition, the Successor will be substituted for the Company under the Indenture. The Successor may then exercise every power and right of the Company under this Indenture, and except in the case of a lease, the Company will be released from all of its liabilities and obligations in respect of the Securities and the Indenture. If the Company leases all or substantially all of its assets, the Company will not be released from its obligations to pay the principal of and interest, if any, on the Securities.

ARTICLE SIX
DEFAULTS AND REMEDIES

Section 6.01 **Events of Default.**

An "**Event of Default**" with respect to a Series occurs upon the occurrence of any of the following:

(1) the failure by the Company to pay interest on any Security of such Series when the same becomes due and payable and the continuance of any such failure for a period of 30 days;

(2) the failure by the Company to pay the principal of any Security of such Series when the same becomes due and payable at maturity, upon acceleration, redemption or otherwise;

(3) the failure by the Company to comply with any of its agreements or covenants in, or provisions of, the Securities of such Series or this Indenture (as they relate thereto) and such failure continues for the period and after the notice specified below (except in the case of a default with respect to Article Five (or any other provision specified in the applicable supplemental indenture or Authorizing Resolution), which will constitute an Event of Default with notice but without passage of time);

(4) the Company or any Subsidiary that is a Significant Subsidiary pursuant to or within the meaning of any Bankruptcy Law:

    (A) commences a voluntary case,

    (B) consents to the entry of an order for relief against it in an involuntary case,

    (C) consents to the appointment of a Custodian of it or for all or substantially all of its Property, or

    (D) makes a general assignment for the benefit of its creditors;

(5) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:
(A) is for relief against the Company or any Subsidiary that is a Significant Subsidiary as debtor in an involuntary case,
(B) appoints a Custodian of the Company or any Subsidiary that is a Significant Subsidiary or a Custodian for all or substantially all of the Property of the Company, or
(C) orders the liquidation of the Company or any Subsidiary that is a Significant Subsidiary, and the order or decree remains unstayed and in effect for 60 days.

A Default as described in subclause (3) above will not be deemed an Event of Default until the Trustee notifies the Company, or the Holders of at least 25 percent in principal amount of the then outstanding Securities of the applicable Series notify the Company and the Trustee, of the Default and (except in the case of a default with respect to Article Five (or any other provision specified in the applicable supplemental indenture or Authorizing Resolution)) the Company does not cure the Default within 60 days after receipt of the notice. The notice must specify the Default, demand that it be remedied and state that the notice is a "Notice of Default." If such a Default is cured within such time period, it ceases to exist, without any action by the Trustee or any other Person.

The term "**Custodian**" means any receiver, trustee, assignee, liquidator, custodian or similar official under any Bankruptcy Law.

Section 6.02 Acceleration.

If an Event of Default (other than an Event of Default with respect to the Company resulting from subclause (4) or (5) above), shall have occurred and be continuing under the Indenture, the Trustee by notice to the Company, or the Holders of at least 25 percent in principal amount of the Securities of the applicable Series then outstanding by notice to the Company and the Trustee, may declare all Securities of such Series to be due and payable immediately. Upon such declaration of acceleration, the amounts due and payable on the Securities of such Series will be due and payable immediately. If an Event of Default with respect to the Company specified in subclauses (4) or (5) above occurs, all amounts due and payable on the Securities of such Series will ipso facto become and be immediately due and payable without any declaration, notice or other act on the part of the Trustee and the Company or any Holder.

Holders of a majority in principal amount of the then outstanding Securities of such Series may rescind an acceleration with respect to such Series and its consequence (except an acceleration due to nonpayment of principal or interest) if the rescission would not conflict with any judgment or decree and if all existing Events of Default (other than the non-payment of accelerated principal) have been cured or waived.

No such rescission shall extend to or shall affect any subsequent Event of Default, or shall impair any right or power consequent thereon.

Section 6.03 Other Remedies.

If an Event of Default on a Series occurs and is continuing, the Trustee may pursue any available remedy by proceeding at law or in equity to collect the payment of principal of or interest on the Series or to enforce the performance of any provision in the Securities or this Indenture applicable to the Series.

The Trustee may maintain a proceeding even if it does not possess any of the Securities or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Securityholder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. No remedy is exclusive of any other remedy. All available remedies are cumulative.

Section 6.04 Waiver of Existing Defaults.

Subject to Section 10.02, the Holders of a majority in principal amount of the outstanding Securities of a Series on behalf of all the Holders of the Series by notice to the Trustee may waive an existing Default on such Series and its consequences. When a Default is waived, it is cured and stops continuing, and any Event of Default arising therefrom shall be deemed to have been cured; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.05 Control by Majority.

The Holders of a majority in principal amount of the outstanding Securities of a Series may 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 it with respect to such Series. The Trustee, however, may refuse to follow any direction (i) that conflicts with law or this Indenture, (ii) that, subject to Section 7.01, the Trustee determines is unduly prejudicial to the rights of other Securityholders, (iii) that would involve the Trustee in personal liability, if there shall be reasonable grounds for believing that adequate indemnity against such liability is not reasonably assured to it, or (iv) if the Trustee shall not have been provided with indemnity satisfactory to it.

Section 6.06 Limitation on Suits.

A Securityholder of a Series may not pursue any remedy with respect to this Indenture or the Securities of a Series unless:

(1) the Holder gives to the Trustee written notice of a continuing Event of Default on the Series;
(2) the Holders of at least 25% in principal amount of the outstanding Securities of the Series make a written request to the Trustee to pursue the remedy;
(3) such Holder or Holders offer to the Trustee indemnity satisfactory to the Trustee against any loss, liability or expense;
(4) the Trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and
(5) no written request inconsistent with such written request shall have been given to the Trustee pursuant to this Section 6.06.

A Securityholder may not use this Indenture to prejudice the rights of another Holder of Securities of the same Series or to obtain a preference or priority over another Holder of Securities of the same Series (it being understood that the Trustee does not have an affirmative duty to ascertain whether or not such actions or forbearances by such Holder are unduly prejudicial to another Holder).

Section 6.07 Rights of Holders to Receive Payment and Convert.

Notwithstanding any other provision of this Indenture, the right of any Holder to receive payment of principal of, premium, if any, and interest on any Security, on or after the respective due dates expressed in the Security, or to bring suit for the enforcement of any such payment on or after such respective dates, is absolute and unconditional and shall not be impaired or affected without the consent of the Holder. Notwithstanding anything to the contrary in this Indenture or the Securities, the right of any Holder of Securities to convert such Securities in accordance with this Indenture, or to bring suit for the enforcement of such right, shall not be impaired or affected without the consent of the Holder.

Section 6.08 Collection Suit by Trustee.

If an Event of Default in payment of interest or principal specified in Section 6.01(1) or (2) occurs and is continuing, the Trustee may recover judgment in its own name and as trustee of an express trust against the Company for the whole amount of principal and interest remaining unpaid.

Section 6.09 **Trustee May File Proofs of Claim.**

The Trustee may file such proofs of claim and 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 the Securityholders allowed in any judicial proceedings relative to the Company or its creditors or Property, and unless prohibited by applicable law or regulation, may vote on behalf of the Holders in any election of a Custodian, and shall be entitled and empowered to collect and receive any moneys or other Property payable or deliverable on any such claims and to distribute the same and any Custodian in any such judicial proceeding is hereby authorized by each Securityholder to make such payments to the Trustee. Nothing herein shall be deemed to authorize the Trustee to authorize or consent to or vote for or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder or to authorize the Trustee to vote in respect of the claim of any Securityholder except as aforesaid for the election of the Custodian.

Section 6.10 **Priorities.**

If the Trustee collects any money pursuant to this Article with respect to Securities of any Series, it shall pay out the money in the following order:

First: to the Trustee for amounts due under Section 7.07;

Second: to Securityholders of the Series for amounts due and unpaid on the Series for principal and interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the Series for principal and interest, respectively; and

Third: to the Company or as a court of competent jurisdiction shall direct.

The Trustee may fix a record date and payment date for any payment to Securityholders pursuant to this Section 6.10.

Section 6.11 **Undertaking for Costs.**

In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in the suit, having the due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section does not apply to a suit by the Trustee, a suit by a Holder pursuant to Section 6.07 or a suit by Holders of more than 10% in principal amount of the Series.

ARTICLE SEVEN
TRUSTEE

Section 7.01 **Duties of Trustee.**

(a) If an Event of Default has occurred and is continuing with respect to Securities of any Series, the Trustee shall, prior to the receipt of directions from the Holders of a majority in principal amount of the Securities of the Series, exercise its rights and powers and use the same degree of care and skill in their exercise as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

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

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

(2) 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. The Trustee, however, in the case of certificates or opinions specifically

required by any provision hereof to be furnished to it, shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture but need not confirm or investigate the accuracy of mathematical calculations or other facts or matters stated therein.

(c) 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:

(1) This paragraph does not limit the effect of paragraph (b) of this Section.

(2) 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.

(3) The Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 6.05 or any other direction of the Holders permitted hereunder.

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

(e) The Trustee may refuse to perform any duty or exercise any right or power unless it receives indemnity satisfactory to it against any loss, liability or expense.

(f) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree with the Company. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

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

Section 7.02 Rights of Trustee.

Subject to Section 7.01:

(a) The Trustee may conclusively rely and shall be fully protected in acting or refraining from acting on any document, resolution, certificate, instrument, report, or direction 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, resolution, certificate, instrument, report, or direction.

(b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel or both, which shall conform to Sections 12.04 and 12.05 hereof and containing such other statements as the Trustee reasonably deems necessary to perform its duties hereunder. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on the Officers' Certificate, Opinion of Counsel or any other direction of the Company permitted hereunder.

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

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

(e) The Trustee may consult with counsel of its selection, and the advice of such counsel or any Opinion of Counsel as to matters of law shall be full and complete authorization and protection in respect of any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel.

(f) Unless otherwise specifically provided in the Indenture, any demand, request, direction or notice from the Company shall be sufficient if signed by an Officer of the Company.

(g) For all purposes under this Indenture, the Trustee shall not be deemed to have notice or knowledge of any Event of Default unless written notice of any Event of Default is received by the Trustee at its address specified in Section 12.02 hereof and such notice references the Securities generally, the Company and this Indenture.

(h) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

(i) 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, direction, consent, order, bond, debenture, note, other evidence of indebtedness 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, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney at the sole cost of the Company and shall incur no liability or additional liability of any kind by reason of such inquiry or investigation.

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

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

(l) The Trustee may request that the Company deliver a certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture.

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

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 its affiliates with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. The Trustee, however, must comply with Sections 7.10 and 7.11.

Section 7.04 Trustee's Disclaimer.

The Trustee makes no representation as to the validity or adequacy of this Indenture, the Securities or of any prospectus used to sell the Securities of any Series; it shall not be accountable for the Company's use of the proceeds from the Securities; it shall not be accountable for any money paid to the Company, or upon the Company's direction, if made under and in accordance with any provision of this Indenture; it shall not be responsible for the use or application of any money received by any Paying Agent other than the Trustee; and it shall not be responsible for any statement of the Company in this Indenture or in the Securities other than its certificate of authentication.

Section 7.05 **Notice of Defaults.**

If a Default on a Series occurs and is continuing and if it is known to the Trustee, the Trustee shall deliver to each Securityholder of the Series notice of the Default (which shall specify any uncured Default known to it) within 90 days after the Trustee obtains such knowledge. Except in the case of a default in payment of principal of or interest on a Series, the Trustee may withhold the notice if and so long as the board of directors of the Trustee, the executive or any trust committee of such directors and/or responsible officers of the Trustee in good faith determine(s) that withholding the notice is in the interests of Holders of the Series.

Section 7.06 **Reports by Trustee to Holders.**

Within 60 days after each May 15 beginning with the May 15 following the date of this Base Indenture, the Trustee shall mail to each Securityholder a brief report dated as of such May 15 that complies with TIA § 313(a) (but if no event described in TIA § 313(1) through (8) has occurred within the twelve months preceding the reporting date no report in relation thereto need be transmitted). The Trustee also shall comply with TIA § 313(b).

A copy of each report at the time of its mailing to Securityholders shall be delivered to the Company and filed by the Trustee with the SEC and each national securities exchange on which the Securities are listed. The Company agrees to notify the Trustee of each national securities exchange on which the Securities are listed.

Section 7.07 **Compensation and Indemnity.**

The Company shall pay to the Trustee from time to time reasonable compensation for its services subject to any written agreement between the Trustee and the Company (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust). The Company shall reimburse the Trustee upon request for all reasonable out-of-pocket expenses incurred by it. Such expenses shall include the reasonable compensation and expenses of the Trustee's agents and counsel. The Company shall indemnify the Trustee, its officers, directors, employees and agents and hold it harmless against any loss, liability or expense incurred or made by or on behalf of it in connection with the administration of this Indenture or the trust hereunder and its duties hereunder including the costs and expenses of defending itself against or investigating any claim in the premises. The Trustee shall notify the Company promptly of any claim of which it has received written notice and for which it may seek indemnity. The Company need not reimburse any expense or indemnify against any loss or liability incurred by the Trustee through the Trustee's, or its officers', directors', or employees' negligence or willful misconduct.

Unless otherwise provided in any supplemental indenture or Authorizing Resolution relating to any Series, to ensure the Company's payment obligations in this Section, the Trustee shall have a claim prior to the Securities of all Series on all money or Property held or collected by the Trustee, except that held in trust to pay principal of or interest on particular Securities. When the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 6.01 or in connection with Article Six hereof, the expenses (including the reasonable fees and expenses of its counsel) and the compensation for services in connection therewith are to constitute expenses of administration under any Bankruptcy Law. Section 7.07 shall survive the discharge of the Indenture or resignation of Trustee.

Section 7.08 **Replacement of Trustee.**

The Trustee may resign with respect to Securities of any or all Series by so notifying the Company. The Holders of a majority in principal amount of the outstanding Securities (or of the relevant Series) may remove the Trustee by so notifying the removed Trustee in writing and may appoint a successor trustee with the Company's consent. Such resignation or removal shall not take effect until the appointment by the Securityholders of the relevant Series or the Company as hereinafter provided of a successor trustee and the acceptance of such appointment by such successor trustee. The Company may remove the Trustee and any Securityholder may petition

any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee for any or no reason, including if:

(1) the Trustee fails to comply with Section 7.10 after written request by the Company or any bona fide Securityholder who has been a Securityholder for at least six months;
(2) the Trustee is adjudged a bankrupt or an insolvent;
(3) a receiver or other public officer takes charge of the Trustee or its Property; or
(4) the Trustee becomes incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee for any reason, the Company shall promptly appoint a successor trustee with respect to the Securities of the relevant Series. If a successor trustee does not take office within 30 days after the retiring Trustee resigns or is removed, the retiring Trustee at the expense of the Company, the Company or any Holder may petition any court of competent jurisdiction for the appointment of a successor trustee.

A successor trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Immediately after that, the retiring Trustee shall, upon payment of its charges hereunder, transfer all Property held by it as Trustee to the successor trustee, 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 under this Indenture. A successor trustee shall mail notice of its succession to each Securityholder.

Section 7.09 Successor Trustee by Merger, etc.

If the Trustee consolidates with, merges with or into or converts into, or transfers all or substantially all of its corporate trust business to, another corporation, the successor corporation without any further act shall be the successor trustee.

Section 7.10 Eligibility; Disqualification.

This Indenture shall always have a Trustee who satisfies the requirements of TIA § 310(a)(1). The Trustee shall have a combined capital and surplus of at least $10,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with TIA § 310(b).

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 therein.

ARTICLE EIGHT
DISCHARGE OF INDENTURE

Section 8.01 Defeasance upon Deposit of Moneys or Government Obligations.

(a) The Company may, at its option and at any time, elect to have either paragraph (b) or paragraph (c) below be applied to the outstanding Securities of any Series upon compliance with the applicable conditions set forth in paragraph (d).

(b) Upon the Company's exercise under paragraph (a) of the option applicable to this paragraph (b) with respect to any Series, the Company shall be deemed to have been released and discharged from its obligations with respect to the outstanding Securities of the Series on the date the applicable conditions set forth below are satisfied (hereinafter, "**Legal Defeasance**"). For this purpose, such Legal Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by the outstanding Securities of a Series, which shall thereafter be deemed to be "outstanding" only for the purposes of the Sections and matters under this Indenture referred to in (i) and (ii) below, and the Company shall be deemed to have satisfied all its other obligations

under such Securities and this Indenture insofar as such Securities are concerned, except for the following which shall survive until otherwise terminated or discharged hereunder: (i) the rights of Holders of outstanding Securities of a Series to receive solely from the trust fund described in paragraph (d) below and as more fully set forth in such paragraph, payments in respect of the principal of and interest on such Securities when such payments are due and (ii) obligations listed in Section 8.02, subject to compliance with this Section 8.01. The Company may exercise its option under this paragraph (b) with respect to a Series notwithstanding the prior exercise of its option under paragraph (c) below with respect to the Securities of the Series.

(c) Upon the Company's exercise under paragraph (a) of the option applicable to this paragraph (c) with respect to a Series, the Company shall be released and discharged from the obligations under any covenant contained in Article Five, Sections 4.03 and any other covenant contained in or referenced in the Authorizing Resolution or supplemental indenture relating to such Series (to the extent such release and discharge shall not be prohibited thereby), on and after the date the conditions set forth below are satisfied (hereinafter, "**Covenant Defeasance**"), and the Securities of such Series shall thereafter be deemed to be not "outstanding" for the purpose of any direction, waiver, consent or declaration or act of Holders (and the consequences of any thereof) in connection with such covenants, but shall continue to be deemed "outstanding" for all other purposes hereunder. For this purpose, such Covenant Defeasance means that, with respect to the outstanding Securities of a Series, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in the
covenants described in the preceding sentence, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of any reference in any such covenant to any other provision herein or in any other document and such omission to comply shall not constitute a Default or an Event of Default under Section 6.01(3) or otherwise, but, except as specified above, the remainder of this Indenture and such Securities shall be unaffected thereby.

(d) The following shall be the conditions to application of either paragraph (b) or paragraph (c) above to the outstanding Securities of the applicable Series:

(1) The Company shall have irrevocably deposited in trust with the Trustee (or another qualifying trustee), pursuant to an irrevocable trust and security agreement in form and substance reasonably satisfactory to the Trustee, money in the currency in which the Securities of such Series are payable or Government Obligations or a combination thereof in such amounts and at such times as are sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay the principal of and interest on the outstanding Securities of such Series to maturity or redemption; *provided, however,* that the Trustee (or other qualifying trustee) shall have received an irrevocable written order from the Company instructing the Trustee (or other qualifying trustee) to apply such money or the proceeds of such Government Obligations to said payments with respect to the Securities of such Series to maturity or redemption;

(2) No Default or Event of Default (other than a Default or Event of Default resulting from non-compliance with any covenant from which the Company is released upon effectiveness of such Legal Defeasance or Covenant Defeasance pursuant to paragraph (b) or (c) hereof, as applicable) shall have occurred and be continuing on the date of such deposit or result therefrom;

(3) (i) In the event the Company elects paragraph (b) hereof, the Company shall deliver to the Trustee an Opinion of Counsel in the United States, in form and substance reasonably satisfactory to the Trustee, to the effect that (A) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (B) since the Issue Date pertaining to such Series, 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 state that, or (ii) in the event the Company elects paragraph (c) hereof, the Company shall deliver to the Trustee an Opinion of Counsel in the United States, in form and substance reasonably satisfactory to the Trustee, to the effect that, in the case of clauses (i) and (ii), and subject to customary assumptions and exclusions, 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 the defeasance contemplated hereby and will be subject to federal income tax in the same amounts and in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred;

(4) The Company shall have delivered to the Trustee an Officers' Certificate, stating that the deposit under clause (1) 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 or others;

(5) The Company shall have delivered to the Trustee an Opinion of Counsel (subject to customary assumptions and qualifications) to the effect that, assuming no intervening bankruptcy of the Company between the date of deposit and the 91st day following the deposit and assuming that no Holder is an "insider" of the Company under applicable Bankruptcy Law, after the 91st day following the deposit, the trust funds shall not be subject to the effect of Section 547 of the United States Bankruptcy Code or any analogous New York State law provision; and

(6) The Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent specified herein relating to the defeasance contemplated by this Section 8.01 have been complied with.

In the event all or any portion of the Securities of a Series are to be redeemed through such irrevocable trust, the Company must make arrangements satisfactory to the Trustee, at the time of such deposit, for the giving of the notice of such redemption or redemptions by the Trustee in the name and at the expense of the Company.

(e) In addition to the Company's rights above under this Section 8.01, the Company may terminate all of its obligations under this Indenture with respect to a Series, when:

(1) All Securities of such Series theretofore authenticated and delivered (other than Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.07 and 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) have been delivered to the Trustee for cancellation or all such Securities not theretofore delivered to the Trustee for cancellation (A) have become due and payable, (B) will become due and payable at 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, and in each such case, the Company has irrevocably deposited or caused to be deposited with the Trustee (or another qualifying trustee) as trust funds in trust solely for that purpose an amount of money in the currency in which the Securities of such Series are payable or Government Obligations or a combination thereof sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay and discharge the entire indebtedness on the Securities of such Series not theretofore delivered to the Trustee for cancellation, for principal of and interest on the Securities of such Series, on the date of such deposit or to the maturity or redemption date, as the case may be;

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

(3) The Company has delivered irrevocable instructions to the Trustee (or such other qualifying trustee), to apply the deposited money toward the payment of the Securities of such Series at maturity or redemption, as the case may be; and

(4) The Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, stating that all conditions precedent specified in this Section 8.01(e) relating to the satisfaction and discharge of this Indenture have been complied with.

Section 8.02 Survival of the Company's Obligations.

Notwithstanding the satisfaction and discharge of this Indenture under Section 8.01, the Company's obligations in Paragraph 8 of the Securities and Sections 2.03 through 2.07, 4.01, 7.07, 7.08, 8.04 and 8.05, however, shall survive until the Securities of an applicable Series are no longer outstanding. Thereafter, the Company's obligations in Paragraph 8 of the Securities of such Series and Sections 7.07, 8.04 and 8.05 shall survive (as they relate to such Series) such satisfaction and discharge.

Section 8.03 Application of Trust Money.

The Trustee shall hold in trust money or Government Obligations deposited with it pursuant to Section 8.01. It shall apply the deposited money and the money from Government Obligations in accordance with this Indenture to the payment of principal of and interest on the Securities of the defeased Series.

Section 8.04 Repayment to the Company.

The Trustee and the Paying Agent shall promptly pay to the Company upon request any excess money or securities held by them at any time. The Trustee and the Paying Agent shall pay to the Company upon request any money held by them for the payment of principal or interest that remains unclaimed for two years, *provided, however,* that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once in a newspaper of general circulation in the City of New York or mail to each such Holder 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 or mailing, any unclaimed balance of such money then remaining will be repaid to the Company. After payment to the Company, Securityholders entitled to the money must look to the Company for payment as general creditors unless applicable abandoned property law designates another person and all liability of the Trustee or such Paying Agent with respect to such money shall cease.

Section 8.05 Reinstatement.

If the Trustee is unable to apply any money or Government Obligations in accordance with Section 8.01 by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Company's obligations under this Indenture and the Securities relating to the Series shall be revived and reinstated as though no deposit had occurred pursuant to Section 8.01 until such time as the Trustee is permitted to apply all such money or Government Obligations in accordance with Section 8.01; *provided*, *however*, that (a) if the Company has made any payment of interest on or principal of any Securities of the Series because of the reinstatement of its obligations hereunder, the Company shall be subrogated to the rights of the Holders of such Securities to receive such payment from the money or Government Obligations held by the Trustee and (b) unless otherwise required by any legal proceeding or any order or judgment of any court or governmental authority, the Trustee shall return all such money or Government Obligations to the Company promptly after receiving a written request therefor at any time, if such reinstatement of the Company's obligations has occurred and continues to be in effect.

ARTICLE NINE
RESERVED

ARTICLE TEN
AMENDMENTS, SUPPLEMENTS AND WAIVERS

Section 10.01 Without Consent of Holders.

The Company and the Trustee may amend or supplement this Indenture or the Securities of a Series without notice to or consent of any Securityholder of such Series:

(1) to cure any ambiguity, omission, defect or inconsistency;

(2) to comply with Article Five;

(3) to provide that specific provisions of this Indenture shall not apply to a Series not previously issued or to make a change to specific provisions of this Indenture that only applies to any Series not previously issued or to additional Securities of a Series not previously issued;

(4) to create a Series and establish its terms;

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

(6) to release a guarantor in respect of any Series which, in accordance with the terms of this Indenture applicable to the particular Series, ceases to be liable in respect of its guarantee;

(7) to add a guarantor in respect of any Series;
(8) to secure any Series;
(9) to add to the covenants of the Company for the benefit of the Holders or surrender any right or power conferred upon the Company;
(10) to appoint a successor trustee with respect to the Securities;
(11) to comply with requirements of the SEC in order to effect or maintain the qualification of this Indenture under the TIA;
(12) to make any other change that does not adversely affect the rights of Securityholders; and
(13) to conform the provisions of the Indenture to the final offering memorandum or prospectus in respect of any Series.

After an amendment under this Section 10.01 becomes effective, the Company shall mail notice of such amendment to the Securityholders.

Section 10.02 With Consent of Holders.

The Company and the Trustee may amend or supplement any provision of the Securities of a Series or of this Indenture relating to such Series without notice to any Securityholder of such Series but with the written consent of the Holders of at least a majority in principal amount of the outstanding Securities of such Series (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Securities of such Series). Each such Series shall vote as a separate class. The Holders of a majority in principal amount of the outstanding Securities of any Series may waive compliance by the Company with any provision of the Securities of such Series or of this Indenture relating to such Series without notice to any Securityholder (including any waiver granted in connection with a purchase of, or tender offer or exchange offer for, Securities of such Series). Without the consent of each Holder of a Security the terms of which are directly amended, supplemented or waived, however, an amendment, supplement or waiver, including a waiver pursuant to Section 6.04, may not (with respect to any Securities of such Series held by a non-consenting Holder):

(1) reduce the amount of Securities of the relevant Series whose Holders must consent to an amendment, supplement or waiver;

(2) reduce the rate of or extend the time for payment of interest, including defaulted interest, on any Security;

(3) reduce the principal of or extend the fixed maturity of any Security or alter the provisions (including related definitions) with respect to redemption of any Security pursuant to Article Three hereof or with respect to any obligations on the part of the Company to offer to purchase or to redeem Securities of a Series pursuant to the Authorizing Resolution or supplemental indenture pertaining to such Series in a manner adverse to Holders;

(4) make any change that adversely affects any right of a Holder to convert or exchange any Security into or for shares of the Company's Capital Stock or other securities, cash or other property in accordance with the terms of such Security;

(5) modify the ranking or priority of the Securities of the relevant Series or any guarantee thereof;

(6) release any guarantor of any Series from any of its obligations under its guarantee or this Indenture otherwise than in accordance with the terms of this Indenture;

(7) make any change in Sections 6.04, 6.07 or this Section 10.02, except to increase the percentage required for modification or waiver or to provide for consent of each affected Holder of Securities of such Series;

(8) waive a continuing Default or Event of Default in the payment of the principal of or interest on any Security; or

(9) make any Security payable at a place or in money other than that stated in the Security, or impair the right of any Securityholder to bring suit as permitted by Section 6.07.

An amendment of a provision included solely for the benefit of one or more Series does not affect the interests of Securityholders of any other Series.

It shall not be necessary for the consent of the Holders under this Section to approve the particular form of any proposed supplement, but it shall be sufficient if such consent approves the substance thereof.

Section 10.03 Compliance with Trust Indenture Act.

Every amendment to or supplement of this Indenture or any Securities shall comply with the TIA as then in effect.

Section 10.04 Revocation and Effect of Consents.

A consent to an amendment, supplement or waiver by a Holder shall bind 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. Unless otherwise provided in the consent or the consent solicitation statement or other document describing the terms of the consent, any Holder or subsequent Holder may revoke the consent as to its Security or portion of a Security. Any revocation of a consent by the Holder of a Security or any such subsequent Holder shall be effective only if the Trustee receives the notice of revocation before the date on which the Trustee receives an Officers' Certificate from the Company certifying that the requisite number of consents have been received.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Holders of Securities of any Series entitled to consent to any amendment, supplement or waiver, which record date shall be at least 10 days prior to the first solicitation of such consent. If a record date is fixed, and if Holders otherwise have a right to revoke their consent under the consent or the consent solicitation statement or other document describing the terms of the consent, then notwithstanding the second to last sentence of the immediately preceding paragraph, those Persons who were Holders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to revoke any consent previously given, whether or not such Persons continue to be Holders after such record date. No such consent shall be valid or effective for more than 90 days after such record date.

An amendment, supplement or waiver with respect to a Series becomes effective upon the (i) receipt by the Company or the Trustee of the requisite consents, (ii) satisfaction of any conditions to effectiveness as set forth in this Indenture or any indenture supplemental hereto containing such amendment, supplement or waiver and (iii) execution of such amendment, supplement or waiver (or the related supplemental indenture) by the Company and the Trustee. After an amendment, supplement or waiver with respect to a Series becomes effective, it shall bind every Holder of such Series, unless it makes a change described in any of clauses (1) through (9) of Section 10.02, in which case, the amendment, supplement or waiver shall bind a Holder of a Security of such Series only if it has consented to such amendment, supplement or waiver and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security; *provided* that no such waiver shall impair or affect the right of any Holder to receive payment of principal of and interest on a Security, on or after the respective due dates expressed in such Security, or to bring suit for the enforcement of any such payment on or after such respective dates without the consent of such Holder.

Section 10.05 Notation on or Exchange of Securities.

If an amendment, supplement or waiver changes the terms of a Security, the Company may require the Holder of the Security to deliver it to the Trustee, at which time the Trustee shall place an appropriate notation on the Security about the changed terms and return it to the Holder. Alternatively, if the Company or the Trustee so determines, the Company in exchange for the Security shall issue and the Trustee shall authenticate a new Security that reflects the changed terms.

Section 10.06 **Trustee to Sign Amendments, etc.**

Subject to Section 7.02(b), the Trustee shall sign any amendment, supplement or waiver authorized pursuant to this Article if the amendment, supplement or waiver does not adversely affect the rights, duties, liabilities or immunities of the Trustee. If it does, the Trustee may but need not sign it. In signing or refusing to sign such amendment or supplemental indenture, the Trustee shall be provided with and shall be fully protected in relying upon, an Officers' Certificate and an Opinion of Counsel as conclusive evidence that such amendment, supplement or waiver is authorized or permitted by this Indenture, and (solely with respect to such Opinion of Counsel) that it will be valid and binding upon the Company and enforceable in accordance with its terms.

ARTICLE ELEVEN
SECURITIES IN FOREIGN CURRENCIES

Section 11.01 **Applicability of Article.**

Whenever this Indenture provides for (i) any action by, or the determination of any of the rights of, Holders of Securities of any Series in which not all of such Securities are denominated in the same currency, or (ii) any distribution to Holders of Securities, in the absence of any provision to the contrary pursuant to this Indenture or the Securities of any particular Series, any amount in respect of any Security denominated in a Foreign Currency shall be treated for any such action or distribution as that amount of Dollars that could be obtained for such amount on such reasonable basis of exchange and as of the record date with respect to Securities of such Series (if any) for such action, determination of rights or distribution (or, if there shall be no applicable record date, such other date reasonably proximate to the date of such action, determination of rights or distribution) as the Company may specify in a written notice to the Trustee or, in the absence of such written notice, as the Trustee may determine.

ARTICLE TWELVE
MISCELLANEOUS

Section 12.01 **Trust Indenture Act Controls.**

If any provision of this Indenture limits, qualifies or conflicts with another provision which is required to be included in this Indenture by the TIA, the required provision shall control.

Section 12.02 **Notices.**

Any order, consent, notice or communication shall be sufficiently given if in writing and delivered in person or mailed by first class mail, postage prepaid, addressed as follows:

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 mailed to a Securityholder shall be mailed to him by first class mail at his address as it appears on the registration books of the Registrar and shall be sufficiently given to him if so mailed within the time prescribed.

Failure to mail a notice or communication to a Securityholder or any defect in it shall not affect its sufficiency with respect to other Securityholders. If a notice or communication is mailed in the manner provided above, it is

duly given, whether or not the addressee receives it except that notice to the Trustee shall only be effective upon receipt thereof by the Trustee.

If the Company mails notice or communications to the Securityholders, it shall mail a copy to the Trustee at the same time.

In addition to the foregoing, the Trustee agrees to accept and act upon notice, instructions or directions pursuant to this Indenture sent by unsecured e-mail, facsimile transmission or other similar unsecured electronic methods. If the party elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The party providing electronic instructions agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties.

Section 12.03 Communications by Holders with Other Holders.

Securityholders may communicate pursuant to TIA § 312(b) with other Securityholders with respect to their rights under this Indenture or the Securities. The Company, the Trustee, the Registrar and anyone else shall have the protection of TIA § 312(c).

Section 12.04 Certificate and Opinion as to Conditions Precedent.

Upon any request or application by the Company to the Trustee to take any action under this Indenture, the Company shall furnish to the Trustee:

(1) an Officers' Certificate (which shall include the statements set forth in Section 12.05) 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

(2) an Opinion of Counsel (which shall include the statements set forth in Section 12.05) stating that, in the opinion of such counsel, all such conditions precedent, if any, provided for in this Indenture relating to the proposed action or inaction, have been complied with.

Any Officers' Certificate may be based, and may state that it is so based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, internal or external legal counsel. Any Opinion of Counsel may be based, and may state that it is so based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an Officer or Officers of the Company or any guarantor stating that the information with respect to such factual matters is known to the Company or such guarantor, unless such counsel knows that the certificate or opinion or representations with respect to such matters are erroneous.

Section 12.05 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:

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

(2) 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;

(3) a statement that, in the opinion of such person, 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

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

Section 12.06 **Rules by Trustee and Agents.**

The Trustee may make reasonable rules for action by or a meeting of Securityholders. The Registrar or Paying Agent may make reasonable rules for its functions.

Section 12.07 **Legal Holidays.**

A "**Legal Holiday**" is a Saturday, a Sunday, a legal holiday or a day on which banking institutions in New York, New York are not required to be open. If a payment date is a Legal Holiday, payment may be made on the next succeeding day that is not a Legal Holiday, and no interest shall accrue for the intervening period. If this Indenture provides for a time period that ends or requires performance of any non-payment obligation by a day that is not a Business Day, then such time period shall instead be deemed to end on, and such obligation shall instead be performed by, the next succeeding Business Day. A "**Business Day**" is any day other than a Legal Holiday.

Section 12.08 **Governing Law.**

The laws of the State of New York shall govern this Indenture and the Securities of each Series.

Section 12.09 **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 12.10 **No Recourse Against Others.**

All liability described in Paragraph 12 of the Securities of any director, officer, employee or stockholder, as such, of the Company is, to the fullest extent permitted by applicable law, waived and released.

Section 12.11 **Successors and Assigns.**

All covenants and agreements of the Company in this Indenture and the Securities shall bind its successors and assigns. All agreements of the Trustee in this Indenture shall bind its successors and assigns.

Section 12.12 **Duplicate Originals.**

The parties may sign any number of copies of this Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.

Section 12.13 **Severability.**

In case any one or more of the provisions contained in this Indenture or in the Securities of a Series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities.

Section 12.14 **Waiver of Jury Trial.**

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 SECURITIES OR THE TRANSACTION CONTEMPLATED HEREBY.

SIGNATURES

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

SPYRE THERAPEUTICS, INC.

By: ______________________________
Name:
Title:

[ ], as Trustee

By: ______________________________
Name:
Title:

EXHIBIT A

No.

CUSIP/ISIN No.:

[Title of Security]

SPYRE THERAPEUTICS, INC.
a Delaware corporation

promises to pay to or registered assigns the principal sum of [Dollars]* on .

Interest Payment Dates: and

Record Dates: and

Authenticated: Dated:

SPYRE THERAPEUTICS, INC.

By: ______________________________
Name:
Title:

[ ],

as Trustee, certifies that this is one of the Securities
referred to in the within mentioned Indenture.

By: ______________________________
Authorized Signatory

* Or other currency. Insert corresponding provisions on reverse side of Security in respect of foreign currency denomination or interest payment requirement.

SPYRE THERAPEUTICS, INC.

[Title of Security]

SPYRE THERAPEUTICS, INC., a Delaware corporation (together with its successors and assigns, the "**Company**"), issued this Security under an Indenture dated as of (as amended, modified or supplemented from time to time in accordance therewith, the "**Base Indenture**"), as supplemented by the Supplemental Indenture dated as of (the "**Supplemental Indenture**" and together with the Base Indenture, the "**Indenture**"), by and among the Company and [ ], as trustee (in such capacity, the "**Trustee**"), to which reference is hereby made for a statement of the respective rights, obligations, duties and immunities thereunder of the Company, the Trustee and the Holders and of the terms upon which the Securities are, and are to be, authorized and delivered. All terms used in this Security that are defined in the Indenture shall have the meanings assigned to them therein.

1. Interest. The Company promises to pay interest on the principal amount of this Security at the rate per annum shown above. The Company will pay interest semiannually on and of each year, commencing , , until the principal is paid or made available for payment. Interest on the Securities will accrue from the most recent date to which interest has been paid or duly provided for or, if no interest has been paid, from . Interest will be computed on the basis of a 360-day year of twelve 30-day months.

2. Method of Payment. The Company will pay interest on the Securities (except defaulted interest, if any, which will be paid on such special payment date to Holders of record on such special record date as may be fixed by the Company) to the persons who are registered Holders of Securities at the close of business on the [Insert record dates] immediately preceding the interest payment date. Holders must surrender Securities to a Paying Agent to collect principal payments. The Company will pay principal and interest in money of [Insert applicable country or currency] that at the time of payment is legal tender for payment of public and private debts.

3. Paying Agent and Registrar. Initially, the Trustee will act as Paying Agent and Registrar. The Company may change or appoint any Paying Agent, Registrar or co-Registrar without notice. The Company or any of its Subsidiaries or any of their Affiliates may act as Paying Agent, Registrar or co-Registrar.

4. Optional Redemption.[1] The Company may redeem the Securities at any time on or after , in whole or in part, at the following redemption prices (expressed as a percentage of their principal amount) together with interest accrued and unpaid to the date fixed for redemption:

If redeemed during the twelve-month period commencing on and ending on in each of the following years	Percentage

[Insert provisions relating to redemption at option of Holders, if any]

Notice of redemption will be mailed at least 30 days but not more than 60 days before the redemption date to each Holder of Securities to be redeemed at its registered address. Securities in denominations larger than [2] may be redeemed in part. On and after the redemption date interest ceases to accrue on Securities or portions of them called for redemption, *provided* that if the Company shall default in the payment of such Securities at the redemption price together with accrued interest, interest shall continue to accrue at the rate borne by the Securities.

5. Mandatory Redemption.[3] The Company shall redeem [ ]% of the aggregate principal amount of Securities originally issued under the Indenture on each of [ ], which redemptions are calculated to retire [ ]% of the Securities originally issued prior to maturity. Such redemptions shall be made at a redemption price equ

[1] If applicable
[2] Insert applicable denominations and multiples.
[3] If applicable.

al to 100% of the principal amount thereof, together with accrued interest to the redemption date. The Company may reduce the principal amount of Securities to be redeemed pursuant to this Paragraph 5 by the principal amount of any Securities previously redeemed, retired or acquired, otherwise than pursuant to this Paragraph 5, that the Company has delivered to the Trustee for cancellation and not previously credited to the Company's obligations under this Paragraph 5. Each such Security shall be received and credited for such purpose by the Trustee at the redemption price and the amount of such mandatory redemption payment shall be reduced accordingly.

6. Denominations, Transfer, Exchange. The Securities are in registered form only without coupons in denominations of [4] and integral multiples of in excess thereof.[5] A Holder may transfer or exchange Securities by presentation of such Securities to the Registrar or a co-Registrar with a request to register the transfer or to exchange them for an equal principal amount of Securities of other denominations. The Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture. The Registrar need not transfer or exchange any Security selected for redemption or purchase, except the unredeemed or unpurchased part thereof if the Security is redeemed or purchased in part, or transfer or exchange any Securities for a period of 15 days before a selection of Securities to be redeemed or purchased.

7. Persons Deemed Owners. The registered Holder of this Security shall be treated as the owner of it for all purposes.

8. Unclaimed Money. Subject to any applicable abandoned property law, the Trustee and the Paying Agent shall pay to the Company upon written request any money held by them for the payment of principal or interest that remains unclaimed for two years, and thereafter, Holders entitled to the money must look to the Company for payment as general creditors.

9. Amendment, Supplement, Waiver. Subject to certain exceptions, the Indenture or the Securities of a Series may be amended or supplemented with the consent of the Holders of at least a majority in principal amount of the outstanding Securities of such Series and any past default or compliance with any provision relating to any Series of the Securities may be waived in a particular instance with the consent of the Holders of a majority in principal amount of the outstanding Securities of such Series.[6] Without the consent of any Securityholder, the Company and the Trustee may amend or supplement the Indenture or the Securities in certain respects as specified in the Indenture.

10. Successor Corporation. When a successor corporation assumes all the obligations of its predecessor under the Securities and the Indenture, the predecessor corporation will be released from those obligations.

11. Trustee Dealings With Company. Subject to certain limitations imposed by the TIA, the Trustee under the Indenture, in its individual or any other capacity, may make loans to, accept deposits from, and perform services for the Company or its affiliates, and may otherwise deal with the Company or its affiliates, as if it were not Trustee, including owning or pledging the Securities.

12. No Recourse Against Others. A director, officer, employee or stockholder, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of or by reason of, such obligations or their creation. Each Holder by accepting a Security waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities. The waiver may not be effective to waive liabilities under the federal securities laws.

13. Discharge of Indenture. The Indenture contains certain provisions pertaining to defeasance and discharge, which provisions shall for all purposes have the same effect as if set forth herein.

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[4] Insert applicable denominations and multiples.
[5] Insert applicable denominations and multiples.
[6] If different terms apply, insert a brief summary thereof.

14. Authentication. This Security shall not be valid until an authorized signatory of the Trustee signs the certificate of authentication on the other side of this Security.

15. Abbreviations. Customary abbreviations may be used in the name of a Holder or an assignee, such as: TEN COM (= tenants in common), TEN ENT (= tenants by the entireties), JT TEN (= joint tenants with right of survivorship and not as tenants in common), CUST (= custodian), and U/G/M/A (= Uniform Gift to Minors Act).

16. GOVERNING LAW. THIS SECURITY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

17. CUSIP and ISIN Numbers. Pursuant to a recommendation promulgated by the Committee on Uniform Security Identification Procedures, the Company has caused CUSIP and ISIN numbers to be printed on the Securities and has directed the Trustee to use CUSIP and ISIN numbers in notices of repurchase as a convenience to Holders. No representation is made as to the accuracy of such numbers either as printed on the Securities or as contained in any notice of repurchase and reliance may be placed only on the other identification numbers placed thereon.

18. Copies. The Company will furnish to any Holder upon written request and without charge a copy of the Indenture and the applicable Authorizing Resolution or supplemental indenture. Requests may be made to: Spyre Therapeutics, Inc., [ ], Attention: [Chief Financial Officer].

ASSIGNMENT FORM

If you the Holder want to assign this Security, fill in the form below:

I or we assign and transfer this Security to (insert assignee's social security or tax ID number)

____

____

____

____

(Print or type assignee's name, address, and zip code)

and irrevocably appoint agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date:

____

Your signature
(Sign exactly as your name appears on the other side
of this Security)

Signature Guarantee:

GIBSON DUNN

February 27, 2025

Spyre Therapeutics, Inc.
221 Crescent St. Building 23, Suite 105
Waltham, MA 02453

Re: Spyre Therapeutics, Inc.
Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Spyre Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act and the proposed issuance and sale from time to time pursuant to Rule 415 under the Securities Act, together or separately and in one or more series (if applicable) of:

(i) the Company's debt securities (the "Debt Securities");

(ii) shares of the Company's common stock, par value $0.0001 per share (the "Common Stock");

(iii) shares of the Company's preferred stock, par value $0.0001 per share (the "Preferred Stock");

(iv) warrants for the purchase of Debt Securities, Common Stock, and Preferred Stock (the "Warrants"); and

(v) units of the Company comprised of any combination of Debt Securities, Common Stock, Preferred Stock, and Warrants (the "Units").

The Debt Securities, Common Stock, Preferred Stock, Warrants, and Units are collectively referred to herein as the "Securities." The Debt Securities are to be issued under an indenture substantially in the form attached to the Registration Statement (the "Base Indenture").

In arriving at the opinions expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of the form of the Base Indenture, form of the Debt Securities, specimen Common Stock certificates, and such other documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render these opinions. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies. As to any facts material to these opinions, we have relied to the extent we deemed appropriate and without independent investigation upon statements and representations of officers and other representatives of the Company and others.

We have assumed without independent investigation that:

(i) at the time any Securities are sold pursuant to the Registration Statement (the "Relevant Time"), the Registration Statement and any supplements and amendments thereto (including post-effective amendments) will be effective and will comply with all applicable laws;

(ii) at the Relevant Time, a prospectus supplement will have been prepared and filed with the Commission describing the Securities offered thereby and all related documentation and will comply with all applicable laws;

(iii) all Securities will be issued and sold in the manner stated in the Registration Statement and the applicable prospectus supplement;

(iv) at the Relevant Time, all corporate or other action required to be taken by the Company to duly authorize each proposed issuance of Securities and any related documentation (including (i) the due reservation of any shares of Common Stock or Preferred Stock for issuance upon exercise, conversion or exchange of any Securities for Common Stock or Preferred Stock (a "Convertible Security"), and (ii) the execution (in the case of certificated Securities), delivery and performance of the Securities and any related documentation referred to in paragraphs 1 through 5 below) shall have been duly completed and shall remain in full force and effect;

(v) upon issuance of any Common Stock or Preferred Stock, including upon exercise, conversion or exchange of any Convertible Security, the total number of shares of Common Stock or Preferred Stock issued and outstanding will not exceed the total number of shares of Common Stock or Preferred Stock, as applicable, that the Company is then authorized to issue under its certificate of incorporation and other relevant documents;

(vi) in the case of Debt Securities, at the Relevant Time, the relevant trustee shall have been qualified under the Trust Indenture Act of 1939, as amended (the "TIA"), a Statement of Eligibility of the Trustee on Form T-1 shall have been properly filed with the Commission and the relevant Base Indenture shall have been duly executed and delivered by the Company and all other parties thereto and duly qualified under the TIA;

(vii) at the Relevant Time, a definitive purchase, underwriting or similar agreement and any other necessary agreement with respect to any Securities offered or issued will have been duly authorized by all necessary corporate or other action of the Company duly executed and delivered by the Company or any relevant trust and the other parties thereto.

Based on the foregoing and in reliance thereon, and subject to the assumptions, exceptions, qualifications and limitations set forth herein, we are of the opinion that:

1. With respect to any Debt Securities when:
    a. the terms and conditions of such Debt Securities have been duly established by supplemental indenture or officers' certificate in accordance with the terms and conditions of the relevant Base Indenture,
    b. any such supplemental indenture has been duly executed and delivered by the Company and the relevant trustee (together with the relevant Base Indenture, the "Indenture"), and
    c. such Debt Securities have been executed (in the case of certificated Debt Securities), delivered and authenticated in accordance with the terms of the applicable Indenture and

issued and sold for the consideration set forth in the applicable definitive purchase, underwriting or similar agreement,

such Debt Securities will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms.

2. With respect to any shares of Preferred Stock, when:
    a. the certificate of designations relating to such Preferred Stock has been duly executed and filed with the Office of the Secretary of State of the State of Delaware,
    b. such shares have been issued either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement and for the consideration therefor provided for therein or (ii) upon exercise, conversion or exchange of any Convertible Security and for any additional consideration specified in such Convertible Security or the instrument governing such Convertible Security providing for such conversion or exercise, which consideration (including any consideration paid for such Convertible Security), on a per-share basis, shall in either event not be less than the par value of the Preferred Stock, and
    c. any such Convertible Security was previously validly issued and is fully paid and non-assessable (in the case of an equity Security) or is a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms,

such shares of Preferred Stock will be validly issued, fully paid and non-assessable.

3. With respect to shares of Common Stock, when:
    a. such shares of Common Stock have been duly executed (in the case of certificated shares) and delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein, or (ii) upon conversion or exercise of any Convertible Security, in accordance with the terms of such Convertible Security or the instrument governing such Convertible Security providing for such conversion or exercise, and for any additional consideration specified therein, which consideration (including any consideration paid for such Convertible Security), on a per-share basis, shall in either event not be less than the par value of the Common Stock, and
    b. any such Convertible Security was previously validly issued and is fully paid and non-assessable (in the case of an equity Security) or is a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms,

such shares of Common Stock will be validly issued, fully paid and non-assessable.

4. With respect to any Warrants, when:
    a. the warrant agreement relating to such Warrants (the "Warrant Agreement"), if any, has been duly executed and delivered by the Company and each other party thereto,
    b. the terms of the Warrants have been established in accordance with the Warrant Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement, and
    c. the Warrants have been duly executed (in the case of certificated Warrants) and delivered in accordance with the Warrant Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein,

such Warrants will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

5. With respect to any Units, when:
    a. the unit agreement relating to the Units (the "Unit Agreement"), if any, has been duly executed and delivered by the Company and each other party thereto,
    b. the terms of the Units have been duly established in accordance with the Unit Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement, and
    c. the Units have been duly executed (in the case of certificated Units) and delivered in accordance with the Unit Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein,

the Units will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The opinions expressed above are subject to the following exceptions, qualifications, limitations and assumptions:

A. We render no opinion herein as to matters involving the laws of any jurisdiction other than the State of New York and the United States of America and, for purposes of paragraphs 2 and 3 above, the Delaware General Corporation Law. We are not admitted to practice in the State of Delaware; however, we are generally familiar with the Delaware General Corporation Law as currently in effect and have made such inquiries as we consider necessary to render the opinions contained in paragraphs 2 and 3 above. This opinion is limited to the effect of the current state of the laws of the State of New York, the United States of America and, to the limited extent set forth above, the laws of the State of Delaware and the facts as they currently exist. We assume no obligation to revise or supplement this opinion in the event of future changes in such laws or the interpretations thereof or such facts.

B. The opinions above with respect to the Indenture, the Debt Securities, the Warrants, the Warrant Agreement, the Units and the Unit Agreement (collectively, the "Documents") are each subject to (i) the effect of any bankruptcy, insolvency, reorganization, moratorium, arrangement or similar laws affecting the rights and remedies of creditors' generally, including without limitation the effect of statutory or other laws regarding fraudulent transfers or preferential transfers, and (ii) general principles of equity, including without limitation concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance, injunctive relief or other equitable remedies regardless of whether enforceability is considered in a proceeding in equity or at law.

C. We express no opinion regarding the effectiveness of (i) any waiver of stay, extension or usury laws; (ii) provisions relating to indemnification, exculpation or contribution, to the extent such provisions may be held unenforceable as contrary to public policy or federal or state securities laws; (iii) any provision in any Document waiving the right to object to venue in any court; (iv) any agreement to submit to the jurisdiction of any Federal court; or (v) any waiver of the right to jury trial.

D. To the extent relevant to our opinions in paragraphs 4 and 5 and not covered by our opinions in paragraphs 1, 2, and 3, we have assumed that any securities underlying, comprising or issuable upon exchange, conversion or exercise of any Warrants or Units are validly issued, fully paid and non-assessable (in the case of an equity security) or a legal, valid and binding obligation of the issuer thereof, enforceable against such issuer in accordance with its terms.

You have informed us that you intend to issue Securities from time to time on a delayed or continuous basis, and we understand that prior to issuing any Securities pursuant to the Registration Statement (i) you will advise us in writing of the terms thereof, and (ii) you will afford us an opportunity to (x) review the operative documents pursuant to which such Securities are to be issued or sold (including the applicable

offering documents), and (y) file such supplement or amendment to this opinion (if any) as we may reasonably consider necessary or appropriate.

We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the caption “Legal Matters” in the Registration Statement and the prospectus that forms a part thereof. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP

GIBSON DUNN

February 27, 2025

Spyre Therapeutics, Inc.
221 Crescent St. Building 23, Suite 105
Waltham, MA 02453

Re: Spyre Therapeutics, Inc.
Registration Statement on Form S-3

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-3 (the "Registration Statement") of Spyre Therapeutics, Inc., a Delaware corporation (the "Company"), filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), and the prospectus supplement thereto dated February 27, 2025 (the "Prospectus Supplement"), in connection with the offering by the Company of up to $179,059,869 of the Company's common stock, par value $0.0001 per share (the "Shares").

In arriving at the opinion expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of specimen common stock certificates and such other documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render the opinions set forth below. In our examination, we have assumed without independent investigation the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies. We have further assumed that all offers and sales of the Shares will comply with the minimum offering price and pricing formula set forth in the authorization of the offering and sale of the Shares by the Company's Board of Directors.

Based upon the foregoing, and subject to the assumptions, exceptions, qualifications and limitations set forth herein, we are of the opinion that the Shares, when issued against payment therefor as set forth in the Registration Statement and the Prospectus Supplement thereto, will be validly issued, fully paid and non-assessable.

We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the caption "Legal Matters" in the Registration Statement and the Prospectus Supplement. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP

Gibson, Dunn & Crutcher LLP
One Embarcadero Center Suite 2600 | San Francisco, CA 94111-3715 | T: 415.393.8200 | F: 415.393.8306 | gibsondunn.com

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of Spyre Therapeutics, Inc. of our report dated February 27, 2025 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Spyre Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2024. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

Austin, Texas
February 27, 2025