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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-258333

PROSPECTUS SUPPLEMENT

(To Prospectus dated August 16, 2021)

1,700,000 Shares of Common Stock**Pre-Funded Warrants to Purchase up to 300,000 Shares of Common Stock****Common Warrants to Purchase up to 2,000,000 Shares of Common Stock****DURECT CORPORATION**

We are offering 1,700,000 shares of our common stock, pre-funded warrants to purchase up to 300,000 shares of our common stock in lieu of shares of common stock, and accompanying common warrants to purchase up to 2,000,000 shares of our common stock to certain institutional investors in a registered direct offering pursuant to this prospectus supplement and the accompanying prospectus and a securities purchase agreement with such investors. Each share of common stock and each pre-funded warrant we sell will be accompanied by a common warrant to purchase one share of common stock at an exercise price of \$5.00 per share. Each pre-funded warrant will be exercisable for one share of common stock at an exercise price of \$0.00001 per share of common stock. Each share of common stock and accompanying common warrant will be sold at a price of \$5.00. Each share of pre-funded warrant and accompanying common warrant will be sold at a price of \$4.99999 (the combined offering price per share of common stock and accompanying common warrant of \$5.00 less \$0.00001). Each pre-funded warrant will be exercisable upon issuance and will expire when exercised in full. The common warrants are exercisable immediately and will expire 5 years from the date of issuance. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the pre-funded warrants and common warrants.

The shares of common stock and pre-funded warrants, as the case may be, and the accompanying common warrants are only being purchased together in this offering, they will be issued separately and will be immediately separable upon issuance. There is no established public trading market for the pre-funded warrants or the common warrants, and we do not expect a market to develop. We do not intend to apply for listing of the pre-funded warrants or the common warrants on The Nasdaq Capital Market or any securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants and common warrants will be limited.

Our common stock is listed on The Nasdaq Capital Market under the symbol "DRRX." On February 3, 2023, the last reported sales price for our common stock on The Nasdaq Capital Market was \$6.40 per share.

We have engaged Cantor Fitzgerald & Co. and Oppenheimer & Co. as placement agents (collectively, the "placement agents") for this offering. The placement agents have agreed to use their "reasonable best efforts" to place the securities offered by this prospectus supplement and the accompanying prospectus, but the placement agents have no obligation to purchase or sell any of such securities or to arrange for the purchase or sale of any specific number or dollar amount of such securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to closing this offering, the actual offering amount, placement agents' fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth below. We have not arranged to place the funds from the investors in an escrow, trust or similar account. We have agreed to pay the placement agents the fees set forth in the table below in connection with this offering, which assumes that we sell all of the shares of common stock, all of the pre-funded warrants and the accompanying common warrants we are offering hereby.

	Per Share and Accompanying Common Warrant	Per Pre-Funded Warrant and Accompanying Common Warrant	Total
Offering Price	\$ 5.00000	\$ 4.99999	\$10,000,000 ⁽¹⁾
Placement Agents' Fees ⁽²⁾	\$ 0.30000	\$ 0.30000	\$ 600,000
Proceeds to DURECT Corporation, before expenses ⁽³⁾	\$ 4.70000	\$ 4.69999	\$ 9,400,000

(1) The total public offering price assumes the full exercise of the pre-funded warrants issued in the offering.

(2) The placement agents will also be reimbursed for certain expenses incurred in this offering. See "Plan of Distribution" for additional information.

(3) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the common warrants being issued in the offering.

Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading "[Risk Factors](#)" beginning on page S-8 of this prospectus supplement, and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

Delivery of the shares of common stock, pre-funded warrants and accompanying common warrants is expected to be made on or about February 8, 2023, subject to customary closing conditions.

Cantor

Oppenheimer & Co.

The date of this prospectus supplement is February 3, 2023

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to the offering of our common stock, pre-funded warrants and accompanying common warrants to purchase our common stock. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we may authorize for use in connection with this offering in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled, “Where You Can Find More Information” and “Incorporation by Reference.” These documents contain important information that you should consider when making your investment decision.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the offering of the common stock, pre-funded warrants and accompanying common warrants and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, including the documents incorporated by reference into the accompanying prospectus, provides more general information, some of which may not apply to the offering. Generally, when we refer to this prospectus, we are referring to the combined document consisting of this prospectus supplement and the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference into the accompanying prospectus that was filed with the Securities and Exchange Commission (the “SEC”) before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

We are responsible for the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and the placement agents have not, authorized any other person to provide you with different information, and neither we nor the placement agents take any responsibility for any other information that others may give you.

We are not, and the placement agents are not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus supplement to “DURECT,” “we,” “our” or similar references mean DURECT Corporation.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

All statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus, other than statements of historical facts, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future are forward looking statements. Such statements are typically characterized by terminology such as “believe,” “anticipate,” “should,” “intend,” “plan,” “will,” “expect,” “estimate,” “project,” “positioned,” “strategy,” and similar expressions. These statements are based on assumptions and assessments made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of risks and uncertainties, including those risks described or incorporated by reference in this prospectus supplement under “Risk Factors” above.

Forward-looking statements included or incorporated by reference in this prospectus supplement include, but are not limited to, statements about:

- the clinical trial plans and timelines for larsucosterol;
- potential uses and benefits of larsucosterol to treat alcohol-associated hepatitis (also called “alcoholic hepatitis” or “AH”), non-alcoholic steatohepatitis, or other conditions;
- the results and timing of clinical trials, the ability to enroll patients in clinical trials in a timely and cost-effective manner;
- the likelihood of future clinical trial results of larsucosterol being positive and/or similar to results from previous trials, the possible commencement of future clinical trials, enrollment rates and timing of announcements of the results from our clinical trials;
- the possibility of filing for marketing approval for larsucosterol for the treatment of AH if the **AH** to evaluate safety and efficacy of larsucosterol treatment (AHFIRM) trial is successful and the likelihood of the U.S. Food and Drug Administration (“FDA”) or other regulatory bodies granting such marketing approval;
- our intention to seek, and ability to enter into and maintain strategic alliances and collaborations;
- the potential benefits and uses of our products, product candidates and technologies, including larsucosterol, POSIMIR, and our SABER and CLOUD technologies;
- the potential milestone and royalty payments we may receive from Innocoll Pharmaceuticals Limited (“Innocoll”) related to POSIMIR, earn-out payments we may receive from Indivior UK Limited (“Indivior”) related to the commercialization of PERSERIS, and milestone, sub-license fees and royalty payments we may receive from Orient Pharma Co., Ltd. (“Orient Pharma”);
- the progress of our third-party collaborations, including estimated milestones;
- responsibilities of our third-party collaborators, including the responsibility to make cost reimbursement, milestone, royalty and other payments to us, and our expectations regarding our collaborators’ plans with respect to our products and product candidates and continued development of our products and product candidates;
- our responsibilities to our third-party collaborators, including our responsibilities to conduct research and development, clinical trials and/or manufacture excipients, products or product candidates;
- market opportunities for product candidates in our product development pipeline;
- potential regulatory filings for or approval of larsucosterol or any of our or any third parties’ other product candidates;
- the progress and results of our research and development programs and our evaluation of additional development programs;

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- requirements for us to purchase pre-clinical, clinical trial and commercial supplies of product candidates and/or products, as well as raw materials or active pharmaceutical ingredients from third parties, and the ability of third parties to provide us with our requirements for such supplies and raw materials;
- conditions for obtaining regulatory approval of our product candidates;
- submission and timing of applications for regulatory approval and timing of responses to our regulatory submissions;
- the impact of FDA, European Medicines Agency ("EMA") and other government regulation on our business;
- our ability to obtain, assert and protect patents and other intellectual property rights, including intellectual property licensed to our collaborators, as well as avoiding the intellectual property rights of others;
- products and companies that will compete with our products and the product candidates we develop and/or license to third-party collaborators;
- the possibility we may commercialize our own products and build up our commercial, sales and marketing capabilities and other required infrastructure;
- the possibility that we may develop additional manufacturing capabilities;
- our employees, including the number of employees and the continued services of key management, technical and scientific personnel;
- our future performance, including our anticipation that we will not derive meaningful revenues from our products and product candidates in development for at least the next twelve months, potential for future inventory write-offs and our expectations regarding our ability to achieve profitability;
- sufficiency of our cash resources, anticipated capital requirements and capital expenditures, our ability to comply with covenants of our term loan, our need or desire for additional financing, including potential sales under our shelf registration statement, and our ability to continue to operate as a going concern;
- our expectations regarding research and development expenses, and selling, general and administrative expenses;
- the composition of future revenues;
- accounting policies and estimates; and
- our intended use of proceeds from this offering.

Any such forward looking statements are not guarantees of future performance and actual results, developments and business decisions may differ from those contemplated by such forward looking statements. All such forward looking statements are made only as of the date of the document in which they are contained, based on information available to us as of the date of that document, and we caution you not to place undue reliance on forward looking statements in light of the risks and uncertainties associated with them. We disclaim any duty to update any forward-looking statements. You should also carefully consider other information set forth in reports or other documents that we file with the SEC.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus supplement and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. To fully understand this offering and its consequences to you, you should read this entire prospectus supplement, the accompanying prospectus and any related free writing prospectus that we have authorized for use in connection with this offering carefully, including the information referred to under the heading “Risk Factors” in this prospectus supplement beginning on page S-8, and the financial statements and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the exhibits to the registration statement of which this prospectus supplement and the accompanying prospectus is a part, when making an investment decision.

About DURECT Corporation

Our Business

We are a biopharmaceutical company advancing novel and potentially lifesaving investigational therapies derived from our Epigenetic Regulator Program. Larsucosterol (also known as “DUR 928”), a new chemical entity in clinical development, is the lead candidate in our Epigenetic Regulator Program. An endogenous, orally bioavailable small molecule, larsucosterol has been shown in both in vitro and in vivo studies to play an important regulatory role in lipid metabolism, stress and inflammatory responses, and cell death and survival. We are developing larsucosterol for AH, a life-threatening acute liver condition with no approved therapeutics and a 28-Day and 90-Day historical mortality rate of 20%-26% and 29%-31%, respectively. After completing a Phase 2a trial in which 100% of AH patients treated with larsucosterol survived the 28-Day study period, we are now conducting an approximately 300-patient, double-blind, placebo-controlled Phase 2b clinical trial called AHFIRM (trial in AH to evaluate saFety and efficacy of laRsucosterol treatMent). Through our AHFIRM trial, we are evaluating larsucosterol's potential to reduce mortality or liver transplantation compared to a placebo with or without steroids at the investigators' discretion. Currently we anticipate dosing the last patient in the AHFIRM trial in the second quarter of 2023. If the AHFIRM trial is successful, it may support a New Drug Application submission and we may decide to develop our own commercial, sales and marketing organization.

In addition to our Epigenetic Regulator Program, we developed a novel and proprietary post-surgical pain product called POSIMIR that utilizes our innovative SABER® platform technology to enable continuous sustained delivery of bupivacaine, a non-opioid local analgesic, over three days in adults. In February 2021, POSIMIR received U.S. FDA approval for post-surgical pain reduction for up to 72 hours following arthroscopic subacromial decompression. In December 2021, we entered into a license agreement (the “Innocoll Agreement”) with Innocoll, pursuant to which the Company granted to Innocoll an exclusive, royalty-bearing, sublicensable right and license to develop, manufacture and commercialize POSIMIR in the United States. In January 2022, we received a \$4.0 million upfront license fee as well as a payment in the amount of \$1.3 million primarily to cover the manufacturing supplies and excipients and certain equipment transferred to Innocoll pursuant to the terms of the Innocoll Agreement, and certain incurred DURECT expenses the parties negotiated for Innocoll to reimburse under the Innocoll Agreement. In August 2022, we were issued a new patent by the U.S. Patent and Trademark Office, extending U.S. patent coverage of POSIMIR to at least 2041, resulting in an \$8.0 million milestone payment to us by Innocoll. In September 2022, Innocoll launched POSIMIR in the U.S., triggering a \$2.0 million milestone payment to us for the first commercial sale of POSIMIR. We will also earn low double-digit to mid-teen royalties on net product sales of POSIMIR in the U.S. We may earn additional milestone payments up to \$122.0 million in the aggregate, depending on the achievement of certain commercial, regulatory and intellectual property milestone payments with respect to POSIMIR.

As a result of the assignment of certain patent rights, we also receive single digit sales-based earn-out payments from U.S. net sales of Indivior UK Limited (“Indivior”)’s PERSERIS™ (risperidone) drug for schizophrenia and

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single-digit royalties from net sales of Orient Pharma's Methydur Sustained Release Capsules (Methydur) for the treatment of attention deficit hyperactivity disorder (ADHD) in Taiwan. We also manufacture and sell ALZET® osmotic pumps used in laboratory research and have several early-stage development programs with corporate collaborators on terms which typically call for our collaborator to fund all or a substantial portion of future development costs and then pay us milestone payments based on specific development or commercial achievements plus royalties on product sales.

Recent Developments

Certain Preliminary Financial Results as of December 31, 2022

Although we have not finalized our full financial results for the three months and the year ended December 31, 2022, we expect to report that we had approximately \$43.6 million in cash, cash equivalents and investments and approximately \$21.2 million in outstanding debt at December 31, 2022. In addition, we had approximately 22.8 million outstanding shares of common stock at December 31, 2022.

The information above is based on preliminary unaudited information and estimates for the year ended December 31, 2022, is not a comprehensive statement of our financial results for this period, and is subject to change pending completion of our financial closing procedures, final adjustments, completion of the audit of our financial statements and other developments that may arise between now and the time the audit of our financial statements is completed. This preliminary estimate may change. Our expectation with respect to our cash, cash equivalents and investments and debt at December 31, 2022, is based upon management estimates and is the responsibility of management. Our independent registered public accounting firm has not conducted an audit or review of, and does not express an opinion or any other form of assurance with respect to, these preliminary estimates. Our actual results for the three months and the year ended December 31, 2022, will not be available until after this offering is completed.

Reverse Stock Split

On December 5, 2022, we effected a 1-for-10 reverse stock split of our outstanding common stock. The reverse stock split also affected our outstanding stock options, purchase rights and equity incentive plans and resulted in the shares underlying such instruments being reduced and the exercise price being increased proportionately. Except as otherwise indicated, all share and per share information in this prospectus supplement gives effect to such reverse stock split. However, share and per share amounts in the accompanying prospectus and certain of the documents incorporated by reference herein have not been adjusted to give effect to the reverse stock split.

Implications of Being a Smaller Reporting Company

We qualify as a "smaller reporting company" under the rules of the Securities Act of 1933 (as amended, the "Securities Act") and the Securities Exchange Act of 1934 (as amended, the "Exchange Act"). As a result, we may choose to take advantage of certain scaled disclosure requirements available specifically to smaller reporting companies. We will remain a smaller reporting company until the last day of the fiscal year in which the aggregate market value of our common stock held by non-affiliated persons and entities, or our public float, is greater than \$250 million as of the last business day of our most recently completed second fiscal quarter, or the last day of the fiscal year in which we have at least \$100 million in revenue and at least \$700 million in public float as of the last business day of our most recently completed second fiscal quarter.

Company Information

We were incorporated in Delaware in February 1998. Our principal executive offices are located at 10260 Bubb Road, Cupertino, California, 95014. Our telephone number is (408) 777-1417, and our website address is www.durect.com. The information on or accessible through our website does not constitute part of this prospectus supplement or the accompanying prospectus and should not be relied upon in connection with making any investment in our securities.

THE OFFERING

Common stock offered by us

1,700,000 shares of common stock.

Pre-funded warrants offered by us

We are also offering 300,000 pre-funded warrants to purchase shares of common stock, in lieu of shares of common stock that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant is exercisable for one share of our common stock. The purchase price of each pre-funded warrant and each accompanying common warrant (as described below) is equal to the price at which a share of common stock and accompanying common warrant is being sold in this offering, minus \$0.00001 per share, and the exercise price of each pre-funded warrant is \$0.00001 per share. The pre-funded warrants are exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to apply for listing of the pre-funded warrants on The Nasdaq Capital Market or any securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants will be limited. For additional information regarding the pre-funded warrants, see "Description of Securities" below.

Common warrants offered by us

We are also offering common warrants to purchase an aggregate of 2,000,000 shares of common stock at an exercise price of \$5.00 per share. Each common warrant will be exercisable immediately upon issuance and will expire 5 years from the date of issuance. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise, if any, of the common warrants. The shares of common stock and the pre-funded warrants and their accompanying common warrants can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. There is no established public trading market for the common warrants, and we do not expect a market to develop. We do not intend to apply for listing of the common warrants on The Nasdaq Capital Market or any securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the common warrants will be limited. For additional information regarding the common warrants, see "Description of Securities" below.

Offering price

\$5.00 per share and accompanying common warrant and \$4.99999 per pre-funded warrant and accompanying common warrant.

Common stock to be outstanding immediately after this offering

24,479,401 shares, assuming no exercise of any pre-funded warrants or common warrants issued in this offering.

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Use of Proceeds

We estimate that the net proceeds to us from this offering, after deducting the placement agents' fees and other estimated offering expenses payable by us, will be approximately \$8.8 million, assuming no exercise of any pre-funded warrants or common warrants issued in this offering.

We intend to use the net proceeds from the sale of the securities under this prospectus supplement for general corporate purposes, which may include clinical trials, research and development activities, capital expenditures, and selling, general and administrative costs, facilities expansion, and to meet working capital needs. See "Use of Proceeds" on page S-11 of this prospectus supplement.

Risk Factors

Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading "Risk Factors" beginning on page S-8 of this prospectus supplement, and under similar headings in documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

Nasdaq Capital Market symbol

Our common stock is listed under the symbol "DRRX." The pre-funded warrants and common warrants will not be listed or traded on any national securities exchange or other trading market.

The number of shares of our common stock to be outstanding after this offering is based on approximately 22,779,401 shares of our common stock outstanding as of September 30, 2022, and excludes, as of September 30, 2022, the following:

- 2,849,228 shares of common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$12.98 per share under our 2000 Stock Plan, as amended, and our 2000 Directors' Stock Option Plan, as amended (collectively, our "Plans");
- 2,165,316 shares of common stock available for future grant under our Plans; and
- 32,034 shares of common stock available for future grant under our 2000 Employee Stock Purchase Plan, as amended (our "ESPP").

Except as otherwise indicated, all information in this prospectus supplement reflects and assumes the following:

- no exercise of the pre-funded warrants or common warrants offered and sold in this offering;
- no issuance, exercise or settlement of stock-based awards under our Plans or ESPP;
- a 1-for-10 reverse stock split of our common stock effected on December 5, 2022; and
- no sales of shares of our common stock through our Controlled Equity OfferingSM Sales Agreement (the "2021 Sales Agreement"), dated July 30, 2021, by and between the Company and Cantor Fitzgerald & Co. since September 30, 2022.

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RISK FACTORS

Before you invest in our securities, in addition to the other information, documents or reports included or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risk factors described below as well as the risk factors set forth in our annual report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 8, 2022, and our subsequent quarterly reports on Form 10-Q, each as filed with the SEC, which are incorporated by reference herein, as well as the other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. In addition, please read “Cautionary Note Regarding Forward Looking Statements” in this prospectus supplement and “Cautionary Note Regarding Forward Looking Information” in the accompanying prospectus, where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus. Each of the risks described below and in these documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment. Please see the sections entitled “Where You Can Find More Information” and “Information Incorporated by Reference” in this prospectus supplement.

Risks Related to our Common Stock and this Offering

We will require, and may have difficulty or be unsuccessful in raising needed capital in the future, to continue to operate as a going concern.

As of September 30, 2022, we had cash, cash equivalents and investments of \$52.0 million. Our accumulated deficit as of September 30, 2022 was \$550.9 million. We have incurred significant net losses since inception, and expect to incur continuing losses and negative cash flows from operations for the foreseeable future. In addition, our debt repayment obligations under the Loan and Security Agreement (as amended, the “Loan Agreement”) with Oxford Finance LLC may prove a burden to us as such repayment obligations become due, particularly following the expiration of the interest-only period. Such increased payment requirements, currently expected to commence in June 2023, will increase our cash expenditures. Furthermore, over the next twelve months, we anticipate a decline in revenues. As a result of the forgoing conditions, we believe that absent raising additional capital to fund our operations from this offering and from alternative sources, our existing cash, cash equivalents and investments will not be sufficient to fund our current business plan for twelve months from the date of this prospectus supplement and therefore raises substantial doubt regarding our ability to continue as a going concern for a period of one year from the issuance of this prospectus supplement.

Because we continue to experience negative cash flows from operations, our ability to continue as a going concern is subject to our ability to obtain necessary funding from outside sources, including obtaining additional funding from this offering. In addition, we may decide to raise additional capital through a variety of sources in the short-term and in the long-term, including from sales of shares of our common stock through the 2021 Sales Agreement or other equity offerings in the public markets, private equity financings, collaborative arrangements or public or private debt, which, in each case, may be dilutive to existing stockholders, and may cause the price of our common stock to decline. Our continued negative cash flows from operations increase the difficulty in securing alternative sources of funding, and there can be no assurances that we will be able to obtain any future funding on favorable terms or at all. Changing circumstances may cause us to consume capital significantly faster than we currently anticipate and could adversely affect our ability to raise additional capital. Our ability to obtain additional financing in the debt and equity capital markets is subject to several factors, including market and economic conditions, our performance and investor sentiment with respect to us and our industry.

If we are unable to obtain sufficient financing from this offering and from alternative sources, we plan to address our operating cash flow requirements by modifying our current business plan to significantly reduce or refocus our operations, renegotiate or refinance the Loan Agreement, seek to obtain funds through arrangements that may require us to relinquish rights to certain of our products, technologies or potential markets, or liquidate our assets,

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all of which could have a material adverse effect on our business, financial condition and results of operations. In addition, if our modification efforts are insufficient, future reports of our independent registered public accounting firm may contain statements expressing substantial doubt about our ability to continue as a going concern.

We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.

We intend to use the net proceeds from this offering to fund general corporate purposes, which may include clinical trials, research and development activities, capital expenditures, and selling, general and administrative costs, facilities expansion, and to meet working capital needs. Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, impair or delay our ability to develop our product candidates and cause the price of our common stock to decline. See the section entitled "Use of Proceeds."

If you purchase the securities in this offering, you will experience immediate and substantial dilution in your investment. You may experience further dilution if we issue additional equity or equity-linked securities in the future.

The price per share of our securities being offered is higher than the net tangible book value per share of our outstanding common stock prior to this offering. Accordingly, if you purchase securities in this offering, you will incur immediate dilution of approximately \$3.49 per share of common stock, representing the difference between the offering price of the securities and our as adjusted net tangible book value as of September 30, 2022. The exercise of outstanding options into common stock may result in further dilution to your investment in our common stock. See "Dilution" for a more complete description of how the value of your investment in our securities will be diluted upon completion of this offering.

If we issue additional shares of common stock, or securities convertible into or exchangeable or exercisable for shares of common stock, including under our Plans, under our ESPP, under the 2021 Sales Agreement, or if the pre-funded warrants or common warrants offered hereby are exercised, our stockholders, including investors who purchase shares of common stock in this offering, may experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders.

Because we do not currently intend to declare cash dividends on our shares of common stock in the foreseeable future, you must rely on appreciation of the value of our common stock for any return on their investment.

We have never paid cash dividends on our common stock. We currently intend to retain any future earnings to fund the development and growth of our business. Additionally, our ability to pay dividends is limited by restrictions on our ability to pay dividends and make certain other restricted payments under the terms of our term loan. Accordingly, while payment of dividends rests within the discretion of our board of directors, no cash dividends on our common shares have been declared or paid by us and we have no intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

There is no public market for the pre-funded warrants and common warrants being offered in this offering.

There is no public trading market for the pre-funded warrants and common warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded

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warrants or common warrants on any securities exchange or nationally recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the pre-funded warrants and common warrants will be limited.

Holders of pre-funded warrants and common warrants purchased in this offering will have no rights as holders of our common stock with respect to the shares underlying such pre-funded warrants and common warrants until such holders exercise their pre-funded warrants and common warrants and acquire our common stock.

Until holders of pre-funded warrants and common warrants acquire shares of our common stock upon exercise of the pre-funded warrants and common warrants, holders of pre-funded warrants and common warrants will have no rights with respect to the shares of our common stock underlying such pre-funded warrants and common warrants, including with respect to voting rights. Upon exercise of the pre-funded warrants and common warrants, the holders will be entitled to exercise the rights of a holder of our common stock only as to matters for which the record date occurs after the exercise date.

The pre-funded warrants and common warrants being offered may not have value.

The pre-funded warrants being offered by us in this offering have an exercise price of \$0.00001 per share, subject to certain adjustments, will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. Additionally, the common warrants being offered by us in this offering have an exercise price of \$5.00 per share, subject to certain adjustments, and expire 5 years from the date of issuance, after which date any unexercised common warrants will expire and have no further value. If the market price of our common stock does not exceed the exercise price of the pre-funded warrants and/or common warrants during the period when they are exercisable, the pre-funded warrants and/or common warrants may not have any value.

We may not have the ability to repurchase the common warrants.

Under certain circumstances, if a fundamental transaction (as defined in the common warrant) occurs, holders of the common warrants may require us to repurchase the remaining unexercised portion of such common warrants for an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the common warrants. Our ability to repurchase the common warrants depends on our ability to generate significant cash flow in the future. To some extent, this is subject to general economic, financial, competitive, and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate significant cash flow from operations at levels sufficient to permit us to repurchase the common warrants.

The common warrants have certain anti-dilutive rights.

The common warrants include full ratchet anti-dilutive rights in the event any shares of common stock or other equity or equity equivalent securities payable in common stock are granted, issued or sold (or we enter into any agreement to grant, issue or sell), or in accordance with the terms of the applicable common warrants, are deemed to have granted, issued or sold, in each case, at a price less than the exercise price, which automatically decreases the exercise price of the common warrants upon the occurrence of such event, as described in greater detail in the applicable common warrants. Such anti-dilution rights, if triggered, could result in a significant decrease in the exercise price of the common warrants, which could result in significant dilution to existing shareholders.

We may not receive any additional funds upon the exercise of the common warrants.

Each common warrant may be exercised by way of a cashless exercise if at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the common shares to the holder. In addition, a holder of a warrant may also effect an "alternative cashless exercise" on or prior to the six (6) month anniversary of the original issuance date. Accordingly, we may not receive any additional funds upon exercise of the common warrants offered hereby.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, after deducting the placement agents' fees and other estimated offering expenses payable by us, will be approximately \$8.8 million. This estimate excludes the proceeds, if any, from the exercise of the pre-funded warrants and common warrants sold in this offering.

We intend to use the net proceeds from this offering for general corporate purposes, which may include clinical trials, research and development activities, capital expenditures, and selling, general and administrative costs, facilities expansion, and to meet working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the timing and progress of our clinical trial and research and development efforts. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

DIVIDEND POLICY

We have never paid cash dividends on our common stock. We currently intend to retain any future earnings to fund the development and growth of our business. Therefore, we do not currently anticipate paying any cash dividends in the foreseeable future. Additionally, our ability to pay dividends is restricted under the terms of our term loan. Any future determination to pay cash dividends on our common stock will be at the discretion of our board of directors and will depend on our financial condition, results of operations, contractual restrictions, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

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DILUTION

If you invest in our common stock, pre-funded warrants and accompanying common warrants, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and accompanying warrant and the as adjusted net tangible book value per share of common stock after this offering.

Our net tangible book value on September 30, 2022, was approximately \$28.7 million, or approximately \$1.26 per share of common stock. Net tangible book value per share is determined by dividing our net tangible book value, which consists of tangible assets less total liabilities, by the number of shares of common stock outstanding on that date. Without taking into account any other changes in the net tangible book value after September 30, 2022, other than to give effect to our receipt of the estimated net proceeds from the sale of 1,700,000 shares of common stock and accompanying common warrants to purchase up to 1,700,000 shares of common stock at an offering price of \$5.00 per share and accompanying common warrant (excluding the common stock to be issued and the proceeds received, if any from exercises of the common warrants), and after giving effect to the sale of 300,000 shares of pre-funded warrants and accompanying common warrants to purchase up to 300,000 shares of common stock at an offering price of \$4.99999 per share and accompanying common warrant (excluding the common stock to be issued and the proceeds received, if any from exercises of the pre-funded warrants and common warrants) and assuming the full exercise of the pre-funded warrants sold in this offering at an exercise price of \$0.00001 per share underlying the pre-funded warrants and after deducting the placement agents' fees and our other estimated offering expenses, our as adjusted net tangible book value as of September 30, 2022, after giving effect to the items above, would have been approximately \$37.5 million, or \$1.51 per share. This represents an immediate increase in the net tangible book value of \$0.25 per share to existing stockholders and an immediate dilution of \$3.49 per share to new investors. The following table illustrates this per share dilution:

Public offering price per share and accompanying common warrant	\$5.00
Net tangible book value per share as of September 30, 2022	\$1.26
Increase in net tangible book value per share attributable to the offering	<u>\$0.25</u>
As adjusted net tangible book value per share as of September 30, 2022, after giving effect to the offering	<u>\$1.51</u>
Dilution per share to new investors in the offering	<u>\$3.49</u>

The above discussion and table are based on approximately 22,779,401 shares of our common stock outstanding as of September 30, 2022, and excludes, as of September 30, 2022, the following:

- 2,849,228 shares of common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$12.98 per share under our Plans;
- 2,165,316 shares of common stock available for future grant under our Plans; and
- 32,034 shares of common stock available for future grant under our ESPP.

To the extent that any of the outstanding stock options under our Plans are exercised, shares of common stock are purchased under our ESPP, new stock-based awards are issued under our Plans, or we issue additional shares of common stock in the future, including under the 2021 Sales Agreement, there will be further dilution to new investors.

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DESCRIPTION OF SECURITIES

Common Stock

See “Description of Capital Stock” and “Additional Information Concerning Our Capital Stock” beginning on pages 7 and 10, respectively, of the accompanying prospectus.

Common Warrants

The following summary of certain terms and provisions of the common warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions contained in the common warrant, the form of which will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of common warrant for a complete description of the terms and conditions of the common warrants.

General Terms of the Common Warrants

The common warrants to be issued in this offering represent the rights to purchase up to an aggregate of 2,000,000 shares of common stock at an initial exercise price of \$5.00 per share. Each common warrant will be exercisable from the date of issuance and will have a term of 5 years from the date of issuance.

Duration and Exercise Price

Each common warrant has an initial exercise price per share equal to \$5.00. The common warrants are immediately exercisable and will expire on the 5th anniversary of their respective original issuance dates. The exercise price is subject to adjustment in the event of certain dilutive issuances, stock dividends, stock splits, rights offerings or other distributions to holders of common stock, reorganizations or similar events affecting our common stock and the exercise price.

Anti-Dilution Protection

If we issue or sell, or are deemed pursuant to the terms of the common warrants to have issued or sold, any shares of common stock (excluding certain issuances defined in the common warrants as excluded securities) for a consideration per share less than a price equal to the exercise price in effect immediately prior to such issuance or sale or deemed issuance or sale, then immediately after such issuance, if lower, the exercise price then in effect shall be reduced to the price of the shares of common stock issued in the dilutive issuance.

Exercisability and Exercise Limitations

The common warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of such holder’s common warrant to the extent that the holder would own more than 4.99% of the outstanding shares of common stock immediately after exercise, except that upon at least 61 days’ prior notice from the holder to us, the holder may increase the amount of ownership of outstanding shares of common stock after exercising the holder’s common warrants up to 9.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common warrants. No fractional shares of common stock will be issued in connection with the exercise of a common warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

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Cashless Exercise

If, at the time a holder exercises its common warrants, a registration statement registering the issuance of the shares of common stock underlying the common warrants under the Securities Act is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the common warrants.

In addition, a holder of a common warrant may also effect an “alternative cashless exercise” on or prior to the six (6) month anniversary of the original issuance date. In such event, the aggregate number of shares of our common stock issuable in such alternative cashless exercise shall equal the product of (x) the aggregate number of shares of our common stock that would be issuable upon exercise of the common warrant in accordance with the terms of such common warrant if such exercise were by means of a cash exercise rather than a cashless exercise and (y) 0.66.

Fundamental Transaction

In the event of any fundamental transaction, as described in the common warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our shares of common stock, then upon any subsequent exercise of a common warrant, the holder will have the right to receive as alternative consideration, for each share of common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of common stock for which the common warrant is exercisable immediately prior to such event. Notwithstanding the foregoing, in the event of a fundamental transaction, the holders of the common warrants have the right to require us or a successor entity to redeem the common warrants for cash in the amount of the Black-Scholes Value (as defined in each common warrant) of the unexercised portion of the common warrants concurrently with or within 30 days following the consummation of a fundamental transaction. However, in the event of a fundamental transaction which is not in our control, including a fundamental transaction not approved by our board of directors, the holders of the common warrants will only be entitled to receive from us or our successor entity, as of the date of consummation of such fundamental transaction the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of the common warrant that is being offered and paid to the holders of our common stock in connection with the fundamental transaction, whether that consideration is in the form of cash, stock or any combination of cash and stock, or whether the holders of our common stock are given the choice to receive alternative forms of consideration in connection with the fundamental transaction.

Transferability

Subject to applicable laws, a common warrant may be transferred at the option of the holder upon surrender of the common warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Exchange Listing

There is no trading market available for the common warrants on any securities exchange or nationally recognized trading system. We do not plan on applying to list the common warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

No Rights as a Stockholder

Except as otherwise provided in the common warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a common warrant does not have the rights or privileges of a holder of our common stock, including any voting rights or the rights to receive dividends, until the holder exercises the common warrant.

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Pre-Funded Warrants

The following summary of certain terms and provisions of the pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions contained in the pre-funded warrant, the form of which will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.

General Terms of the Pre-Funded Warrants

The pre-funded warrants to be issued in this offering represent the rights to purchase up to an aggregate of 300,000 shares of common stock at an initial exercise price of \$0.00001 per share. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full.

Duration and Exercise Price

Each pre-funded warrant has an initial exercise price per share equal to \$0.00001. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price is subject to adjustment in the event of certain dilutive issuances, stock dividends, stock splits, rights offerings or other distributions to holders of common stock, reorganizations or similar events affecting our common stock and the exercise price.

Exercisability and Exercise Limitations

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of such holder's pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding shares of common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding shares of common stock after exercising the holder's pre-funded warrants up to 9.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon an exercise in payment of the aggregate exercise price, the holder may elect to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants.

Fundamental Transaction

In the event of any fundamental transaction, as described in the pre-funded warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our shares of common stock, then upon any subsequent exercise of a pre-funded warrant, the holder will have the right to receive as alternative consideration, for each share of common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation of our company, if it is the

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surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of common stock for which the pre-funded warrant is exercisable immediately prior to such event.

Transferability

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Exchange Listing

There is no trading market available for the pre-funded warrants on any securities exchange or nationally recognized trading system. We do not plan on applying to list the pre-funded warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

No Rights as a Stockholder

Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights or the rights to receive dividends, until the holder exercises the pre-funded warrant.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

Subject to the limitations, assumptions and qualifications described herein, the following is a summary of certain U.S. federal income tax considerations of the purchase, ownership and disposition of shares of our common stock issued pursuant to this offering (the “Shares”), the purchase, ownership, exercise, and disposition of pre-funded warrants to purchase shares of our common stock issued pursuant to this offering (the “Pre-Funded Warrants”), the purchase, exercise, disposition and lapse of warrants to purchase shares of our common stock issued pursuant to this offering (the “Warrants”), and the purchase, ownership and disposition of shares of our common stock issuable upon exercise of the Warrants (the “Warrant Shares”). The Shares, the Warrants, the Pre-Funded Warrants and the Warrant Shares are collectively referred to herein as the “Offered Securities.” All prospective holders of the Offered Securities should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of the Offered Securities.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), existing U.S. Treasury regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service (the “IRS”), and judicial decisions, all as in effect and available as of the date of this prospectus supplement. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to holders described in this discussion. There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling with respect to the U.S. federal income tax consequences to a holder of the purchase, ownership or disposition of the Offered Securities.

This discussion addresses only Offered Securities that are held as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to particular holders in light of their individual circumstances, nor does it address any alternative minimum, Medicare contribution, estate or gift tax consequences, or any aspects of U.S. state, local or non-U.S. taxes. It does not address holders that are subject to special rules, such as:

- banks, insurance companies or other financial institutions;
- tax-exempt organizations or governmental organizations;
- brokers or dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons who hold any of the Offered Securities as a position in a hedging transaction, “straddle,” “conversion transaction,” or other risk reduction transaction;
- persons deemed to sell any of the Offered Securities under the constructive sale provisions of the Code;
- entities or arrangements classified as partnerships for U.S. federal income tax purposes or other pass-through entities such as subchapter S corporations (or investors in such entities or arrangements);
- regulated investment companies or real estate investment trusts;
- controlled foreign corporations, passive foreign investment companies or corporations that accumulate earnings to avoid U.S. federal income tax;
- U.S. Holders (as defined below) whose functional currency is not the U.S. dollar;
- “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds;
- certain taxpayers that are required to prepare certified financial statements or file financial statements with certain regulatory or governmental agencies;

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- certain U.S. expatriates and former citizens or former long-term residents of the United States; or
- holders that acquire the Offered Securities through the exercise of an employee stock option or otherwise as compensation or through a tax-qualified retirement plan.

If a holder is a partnership or other pass-through entity (including an entity or arrangement treated as a partnership or other type of pass-through entity for U.S. federal income tax purposes), the U.S. federal income tax treatment of a partner or beneficial owner or such partnership will generally depend on the status of such partner or beneficial owner and the entity's activities. Partnerships, partners and beneficial owners in partnerships or other pass-through entities that own the Offered Securities should consult their tax advisors as to the particular U.S. federal income tax considerations applicable to the acquisition, ownership and disposition of the Offered Securities.

For purposes of this discussion, a "U.S. Holder" is a beneficial owner of the Offered Securities, that, for U.S. federal income tax purposes, is:

- an individual that is a citizen or resident of the United States;
- a corporation, or an entity treated as a corporation, created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- a trust that (1) is subject to (A) the primary supervision of a court within the United States and (B) the authority of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) to control all substantial decisions of the trust or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a United States person; or
- an estate that is subject to U.S. federal income tax on its income regardless of its source.

As used herein, the term "Non-U.S. Holder" means a beneficial owner, other than an entity treated as a partnership for U.S. federal income tax purposes, of the Offered Securities that is not a U.S. Holder.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE OFFERED SECURITIES.

Allocation of purchase price

In determining the tax basis of each Share, Pre-Funded Warrant, and Warrant purchased together in this offering, holders should allocate their purchase price between the Share, Pre-Funded Warrant, and Warrant on the basis of their relative fair market values at the time of issuance. We do not intend to advise holders of the Offered Securities with respect to this determination. A holder's allocation of the purchase price between the Shares, Pre-Funded Warrants, and Warrants is not binding on the IRS or the courts, and no assurance can be given that the IRS or the courts will agree with a holder's allocation. All holders are advised to consult their tax and financial advisors with respect to the relative fair market values of the Shares, Pre-Funded Warrants, and Warrants for U.S. federal income tax purposes.

General Treatment of Pre-Funded Warrants

Although the law in this area is not completely settled, the Pre-Funded Warrants generally are expected to be treated as shares of our common stock for U.S. federal income tax purposes and a holder of Pre-Funded Warrants generally should be taxed in the same manner as a holder of Shares as described below. Accordingly, no gain or loss should be recognized upon the exercise of a Pre-Funded Warrant and, upon exercise, the holding period of a Pre-Funded Warrant should carry over to the common shares received. Similarly, the tax basis of a Pre-Funded Warrant should carry over to the common share received upon exercise, increased by the exercise price (if applicable). All holders are advised to consult their tax advisors with respect to the consequences of the

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acquisition, ownership and disposition of the Pre-Funded Warrants, as well as the exercise of, certain adjustments to, and any payments in respect of the Pre-Funded Warrants (including potential alternative characterizations). The balance of this discussion generally assumes that the characterization described above is respected for U.S. federal income tax purposes.

Tax considerations applicable to U.S. Holders

Distributions on Shares and Warrant Shares

We do not anticipate declaring or paying any cash dividends to holders of our common stock. If we make distributions of cash or other property on the Shares or Warrant Shares (other than certain distributions of stock), such distributions will constitute dividends to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Dividends received by a corporate U.S. Holder may be eligible for a dividends received deduction, subject to applicable limitations. Dividends received by certain non-corporate U.S. Holders, including individuals, are generally taxed at the lower applicable capital gains rate provided certain holding period and other requirements are satisfied. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a U.S. Holder's adjusted tax basis in its Shares, Pre-Funded Warrants, or Warrant Shares, as applicable, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "—Sale or other taxable disposition of the Shares, Pre-Funded Warrants, and Warrant Shares."

Sale or other taxable disposition of the Shares, Pre-Funded Warrants, and Warrant Shares

Upon the sale, exchange or other taxable disposition of the Shares, Pre-Funded Warrants, or Warrant Shares, a U.S. Holder will generally recognize capital gain or loss equal to the difference between the amount of cash and the fair market value of any property received upon the sale, exchange or other taxable disposition and such U.S. Holder's adjusted tax basis in the Shares, Pre-Funded Warrants, or Warrant Shares. This capital gain or loss will be long term capital gain or loss if the U.S. Holder's holding period in such Shares, Pre-Funded Warrants, or Warrant Shares is more than one year at the time of the sale, exchange or other taxable disposition. Long-term capital gains recognized by certain non-corporate U.S. Holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations.

Sale or other disposition or exercise of Warrants

Upon the sale, exchange or other disposition of a Warrant (other than by exercise), a U.S. Holder will generally recognize capital gain or loss equal to the difference between the amount realized on the sale, exchange or other disposition and the U.S. Holder's tax basis in the Warrant. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in such Warrant is more than one year at the time of the sale, exchange or other disposition. The deductibility of capital losses is subject to certain limitations.

In general, subject to the discussion below with respect to the cashless exercise of Warrants, a U.S. Holder will not be required to recognize income, gain or loss upon exercise of a Warrant for its exercise price (unless cash is received in lieu of the issuance of a fractional Warrant Share). A U.S. Holder's tax basis in Warrant Shares received upon exercise of Warrants will be equal to the sum of (i) the U.S. Holder's tax basis in the Warrants exchanged therefor and (ii) the exercise price of such Warrants. A U.S. Holder's holding period in the Warrant Shares received upon exercise will commence on the day after such U.S. Holder exercises the Warrants.

In certain circumstances, the Warrants may be exercised on a cashless basis. The U.S. federal income tax treatment of an exercise of a warrant on a cashless basis is unclear, and could differ from the consequences described above. It is possible that a cashless exercise could be a taxable event. U.S. Holders are urged to consult their tax advisors as to the consequences of an exercise of a Warrant on a cashless basis, including with respect to their holding period and tax basis in the Warrant Shares.

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Lapse of Warrants

If a Warrant expires without being exercised, a U.S. Holder will recognize a capital loss in an amount equal to such U.S. Holder's tax basis in the warrant. Such loss will be long-term capital loss if, at the time of the expiration, the U.S. Holder's holding period in such warrant is more than one year. The deductibility of capital losses is subject to certain limitations.

Certain adjustments to and distributions on Warrants

Under Section 305 of the Code, an adjustment to the number of Warrant Shares that will be issued on the exercise of the Warrants, or an adjustment to the exercise price of Warrants (or in certain circumstances, a failure to make adjustments), may be treated as a constructive distribution to a U.S. Holder of the Warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in our assets or earnings and profits as determined under U.S. federal income tax principles, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate the warrant holders for a distribution of cash or other property to our shareholders). Such distributions will constitute dividends to the extent deemed paid out of our current or accumulated earnings and profits, as discussed above under "Distributions on Shares and Warrant Shares." U.S. Holders should consult their tax advisors regarding the proper treatment of any adjustments to the number of Warrant Shares that will be issued on the exercise of the Warrants or the exercise price of the Warrants.

Backup withholding and information reporting

In general, backup withholding and information reporting requirements may apply to payments on the Offered Securities and to the receipt of proceeds on the sale, exchange or other taxable disposition of the Offered Securities. Backup withholding (currently at a rate of 24%) may apply if a U.S. Holder fails to furnish its taxpayer identification number, a U.S. Holder fails to certify under penalties of perjury that such taxpayer identification number is correct and that such U.S. Holder is not subject to backup withholding (generally on a properly completed and duly executed IRS Form W-9), the applicable withholding agent is notified by the IRS that the holder previously failed to properly report payments of interest or dividends, or such U.S. Holder otherwise fails to comply with the applicable requirements of the backup withholding rules.

Certain U.S. Holders generally are not subject to backup withholding and information reporting requirements, provided that their exemptions from backup withholding and information reporting are properly established. Backup withholding is not an additional tax. Any amounts withheld from a payment to a U.S. Holder under the backup withholding rules generally will be allowed as a credit against such U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided the required information is furnished to the IRS in a timely manner. U.S. Holders should consult their tax advisors regarding the application of backup withholding, the availability of an exemption from backup withholding, and the procedure for obtaining such an exemption, if available.

Tax considerations applicable to Non-U.S. Holders

Distributions on Shares, Pre-Funded Warrants, and Warrant Shares

As mentioned above, we do not anticipate declaring or paying any cash dividends to holders of our common stock. However, distributions of cash or other property (other than certain distributions of stock) on the Shares, Pre-Funded Warrants, or Warrant Shares will constitute dividends to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its common stock, but not below zero. Any excess will be subject to the treatment as described below under "—Gain on sale or other taxable disposition of the Offered Securities".

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Dividends paid to a Non-U.S. Holder that are not effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States generally will be subject to withholding tax at a 30% rate or a reduced rate specified by an applicable income tax treaty. In order to obtain a reduced rate of withholding, the Non-U.S. Holder will be required to provide us or our paying agent with a properly executed applicable IRS Form W-8BEN or IRS Form W-8BEN-E (or appropriate successor form), as applicable, certifying under penalties of perjury that the Non-U.S. Holder is not a United States person and is eligible for the benefits under the applicable tax treaty. These forms may need to be periodically updated. If a Non-U.S. Holder holds the Offered Securities through a financial institution or other intermediary, the Non-U.S. Holder generally will be required to provide the appropriate documentation to the financial institution or other intermediary. A Non-U.S. Holder eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty who fails to timely provide an IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim with the IRS.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), the Non-U.S. Holder will generally be taxed on the dividends in the same manner as a U.S. Holder. In this case, the Non-U.S. Holder will be exempt from the withholding tax discussed in the preceding paragraph, although the Non-U.S. Holder will be required to provide a properly executed IRS Form W-8ECI (or appropriate successor form) in order to claim an exemption from withholding. Such effectively connected dividends, although not subject to U.S. federal withholding tax, are subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates generally applicable to a United States person. Dividends received by a corporate Non-U.S. Holder that are effectively connected with such Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States) may be subject to an additional branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty). Non-U.S. Holders should consult their tax advisors with respect to other U.S. tax consequences of the acquisition, ownership and disposition of the Offered Securities, including the possible imposition of the branch profits tax.

The taxation of a distribution received with respect to the Pre-Funded Warrants is unclear. It is possible such a distribution would be treated as a distribution as described in this section, although other treatments may also be possible. You should consult your own tax advisors regarding the proper treatment of any payments in respect of the Pre-Funded Warrants.

Exercise of Warrants

A Non-U.S. Holder generally will not recognize gain or loss on the exercise of a Warrant and the related receipt of Warrant Shares.

Lapse of Warrants

If a Non-U.S. holder allows a Warrant to expire unexercised, such Non-U.S. holder will recognize a capital loss for U.S. federal income tax purposes in an amount equal to such holder's tax basis in the common warrant. See "—Tax considerations applicable to U.S. Holders"—Lapse of Warrants" above.

Gain on sale or other taxable disposition of the Offered Securities

Subject to the discussions below under "—Information reporting and backup withholding" and "—FATCA," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on gain realized on a sale, exchange or other taxable disposition of the Offered Securities unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States),

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- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- We are or have been a “United States real property holding corporation,” as defined in the Code, at any time within the five-year period ending on the date of disposition or the Non-U.S. Holder’s holding period, whichever period is shorter, and the Non-U.S. Holder is not eligible for an exemption under an applicable income tax treaty.

We believe that we are not, and do not anticipate becoming, a United States real property holding corporation. Even if we are or have been a United States real property holding corporation during the specified testing period, as long as our common stock is regularly traded on an established securities market (such as The Nasdaq Capital Market) at any time during the calendar year in which the disposition occurs, a Non-U.S. Holder will not be subject to U.S. federal income tax on the disposition of Shares, Pre-Funded Warrants, or Warrant Shares if the Non-U.S. Holder does not own or has not owned (actually or constructively) more than 5% of our common stock at any time during the shorter of the two periods mentioned above. Special rules may apply to the determination of the 5% threshold in the case of a Non-U.S. Holder of Warrants. Non-U.S. Holders are urged to consult their tax advisors regarding the effect of holding Warrants on the calculation of such 5% threshold. Non-U.S. Holders should consult their tax advisors regarding the application of this regularly traded exception.

If a Non-U.S. Holder recognizes gain on a sale, exchange or other disposition of the Offered Securities that is effectively connected with the Non-U.S. Holder’s conduct of a trade or business in the United States (and if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), the Non-U.S. Holder will generally be subject to U.S. federal income tax at the regular U.S. federal income tax rates generally applicable to a United States person. If the Non-U.S. Holder is a corporation, the Non-U.S. Holder may also be subject to the branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. Non-U.S. Holders should consult their tax advisors with respect to other U.S. tax consequences of the acquisition, ownership and disposition of the Offered Securities, including the possible imposition of the branch profits tax.

Certain adjustments to and distributions on Warrants

As discussed above under “—Tax considerations applicable to U.S. Holders—Certain adjustments to and distributions on Warrants,” certain adjustments to the number of Warrant Shares on the exercise of the Warrants, or an adjustment to the exercise price of the Warrants (or certain failures to make adjustments), may be deemed to be the payment of a distribution with respect to the Warrants. Such a deemed distribution could be treated as a dividend to a Non-U.S. Holder to the extent of our earnings and profits, notwithstanding the fact that such Holder will not receive a cash payment. In the event of such a deemed dividend, we may be required to withhold tax from subsequent distributions of cash or property to Non-U.S. Holders. Non-U.S. Holders should consult their tax advisors regarding the proper treatment of any such adjustments to the Warrants.

In addition, as discussed above under “—Tax considerations applicable to U.S. Holders—Certain adjustments to and distributions on Warrants,” the taxation of a distribution received with respect to a Warrant is unclear. It is possible such a distribution would be treated as a distribution (or constructive distribution), although other treatments are possible. Non-U.S. Holders should consult their tax advisors regarding the U.S. withholding tax and other U.S. tax consequences of distributions received with respect to Warrants.

Information reporting and backup withholding

Information returns will be filed with the IRS in connection with payments of dividends on the Offered Securities. Copies of the information returns reporting those dividends and withholding may also be made available to the tax authorities in the country in which a Non-U.S. Holder is a resident under the provisions of an applicable income tax treaty or agreement. Unless a Non-U.S. Holder complies with certification procedures to

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establish that the Non-U.S. Holder is not a United States person, information returns may also be filed with the IRS in connection with the proceeds from a sale, exchange or other disposition of the Offered Securities to or through the U.S. office (and, in certain cases, the foreign office) of a broker.

A Non-U.S. Holder may be subject to backup withholding (currently at a rate of 24%) on payments on the Offered Securities or on the proceeds from a sale, exchange or other disposition of the Offered Securities unless the Non-U.S. Holder complies with certification procedures to establish that the Non-U.S. Holder is not a United States person or otherwise establishes an exemption. Compliance with the certification procedures required to claim a reduced rate of withholding under a treaty (including properly certifying non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 (or appropriate successor form)) generally will satisfy the certification requirements necessary to avoid backup withholding as well. Notwithstanding the foregoing, U.S. federal backup withholding may apply if the payor has actual knowledge, or reason to know, that a holder is a United States person.

Backup withholding is not an additional tax. Any amounts withheld from a payment to a Non-U.S. Holder under the backup withholding rules generally will be allowed as a credit against such Non-U.S. Holder's U.S. federal income tax liability and may entitle such Non-U.S. Holder to a refund, provided the required information is furnished to the IRS in a timely manner. Non-U.S. Holders are urged to consult their tax advisors regarding the application of backup withholding and the availability of and procedure for obtaining an exemption from backup withholding in their particular circumstances.

FATCA

Provisions of the Code commonly referred to as "FATCA" require withholding of 30% on payments of dividends on the Offered Securities, as well as payments of gross proceeds of dispositions of the Offered Securities, to a "foreign financial institution" (which is broadly defined for this purpose and in general includes investment vehicles) and certain other non-U.S. entities unless various U.S. information reporting and due diligence requirements (generally relating to ownership by United States persons of interests in or accounts with those entities) have been satisfied or an exemption applies. However, the IRS has issued proposed Treasury regulations that eliminate FATCA withholding on payments of gross proceeds (but not on payments of dividends). Pursuant to the preamble to the proposed Treasury regulations, any applicable withholding agent may (but is not required to) rely on this proposed change to FATCA withholding until final Treasury regulations are issued or the proposed Treasury regulations are withdrawn. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. If FATCA withholding is imposed, a beneficial owner that is not a foreign financial institution generally may obtain a refund of any amounts withheld by filing a U.S. federal income tax return (which may entail significant administrative burden). Holders should consult their tax advisors regarding the effects of FATCA on their investments in the Offered Securities.

We will not pay any additional amounts to Holders with respect to any amounts withheld, including pursuant to FATCA.

THE PRECEDING DISCUSSION OF U.S. FEDERAL TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF THE OFFERED SECURITIES, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

PLAN OF DISTRIBUTION

Cantor Fitzgerald & Co. and Oppenheimer & Co., as placement agents, have agreed to act as our placement agents in connection with this offering, subject to the terms and conditions of the placement agency agreement dated February 3, 2023, entered into by and among the Company and the placement agents. The placement agents are not purchasing or selling any of the securities offered by this prospectus supplement, but will use their reasonable best efforts to arrange for the sale of the securities offered by this prospectus supplement. We have entered into a securities purchase agreement directly with the investors in connection with this offering, pursuant to which, subject to certain conditions, we will sell to the investors an aggregate of 1,700,000 shares of common stock, pre-funded warrants to purchase up to 300,000 shares of common stock and accompanying common warrants to purchase up to 2,000,000 shares of common stock. There is no market through which the common warrants and pre-funded warrants may be sold and the investors may not be able to resell the common warrants or the pre-funded warrants purchased under this prospectus supplement. The securities purchase agreement contains customary representations, warranties and covenants.

We will deliver the shares offered pursuant to this prospectus supplement to the investors electronically upon receipt of investor funds for the purchase of such shares. The common warrants and pre-funded warrants will be issued in certificated form. We expect to deliver the shares of our common stock, common warrants and pre-funded warrants being offered pursuant to this prospectus supplement on or about February 8, 2023, subject to customary closing conditions.

This is a summary of the material provisions of the placement agency agreement and securities purchase agreement and does not purport to be a complete statement of their terms and conditions. A copy of the placement agency agreement and the form of securities purchase agreement with the investors has been filed with the SEC and are incorporated by reference into the registration statement of which this prospectus supplement forms a part.

Fees and Expenses

We have agreed to pay the placement agents a cash fee of 6.0% of the aggregate gross proceeds of this offering paid to us at closing. We have also agreed to reimburse the placement agents for certain of their expenses related to this offering in an amount up to \$150,000.

The terms of this offering were subject to market conditions and negotiations between us and the investors. The factors considered in determining the price included the recent market price of our common stock, the general condition of the securities market at the time of this offering, the history of, and the prospects, for the industry in which we compete, our past and present operations, and our prospects for future revenues.

The placement agents may be deemed to be underwriters within the meaning of Section 2(a)(11) of the Securities Act, and any fees or commissions received by them and any profit realized on the resale of the securities sold by them while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agents would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act.

These rules and regulations may limit the timing of purchases and sales of our securities by the placement agents. Under these rules and regulations, the placement agents:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

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We have agreed to indemnify the placement agents and certain other persons against certain liabilities, including civil liabilities under the Securities Act and the Exchange Act and to contribute to payments that the placement agents may be required to make in respect of those liabilities.

From time to time, the placement agents have provided and may provide in the future, various financial advisory, investment banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions.

No Sales of Similar Securities

Pursuant to the securities purchase agreement, subject to certain exceptions, from the date hereof until 90 days after the closing of this offering we have agreed not to (i) issue, enter into any agreement to issue, or announce the issuance or proposed issuance of any shares of common stock or common stock equivalents, or (ii) file or amend any registration statement or prospectus, other than to file a registration statement on Form S-8 in connection with any employee benefit plan, any amendment to this prospectus or as necessary to maintain the registration of the securities offered hereby issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of common stock or common stock equivalents for a period of 90 days following the consummation of this offering. We have also agreed not to enter into any “variable rate transactions” for a period of 18 months following the consummation of this offering. Notwithstanding the foregoing, from the date hereof until 120 days after the closing, we may not enter into any transactions contemplated by the Controlled Equity OfferingSM Sales Agreement, dated July 30, 2021, by and between the Company and Cantor Fitzgerald & Co.

The foregoing restrictions shall not apply in respect of (except no “variable rate transaction” is exempt) (i) the issuance of securities to our directors, officers, employees and consultants pursuant to employee benefit plans, equity incentive plans or other employee compensation plans existing on the date hereof and as described in this prospectus supplement and the documents that are incorporated by reference herein or pursuant to Nasdaq Rule 5635(c)(4), (ii) securities pursuant to the exercise, exchange or conversion of any options, warrants, restricted stock units, rights or convertible securities outstanding on the date hereof, provided that such securities have not been amended since the date of the securities purchase agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities or to extend the terms of such securities, (iii) securities issued in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by us of the securities, businesses, property or other assets of another person, provided that such issuance is approved by the majority of the disinterested directors of our board of directors and provided that such securities are issued as “restricted securities” (as defined in Rule 144 under the Securities Act) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the restricted period, and (iv) issuances to one or more lenders in connection with our entry into a debt financing transaction, provided that such issuances shall only be in the form of warrants to purchase shares of our common stock.

Each of our executive officers and directors have entered into lock-up agreements with us. Under these agreements, each of these persons may not, subject to certain exceptions, offer, sell, contract to sell, lend, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in such disposition) directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act with respect to, shares of our common stock or securities convertible, exchangeable or exercisable into, shares of our common stock. These restrictions will be in effect for a period of 90 days after the closing of this offering.

Listing

Our common stock is listed on The Nasdaq Capital Market under the trading symbol “DRRX.”

We do not intend to apply for listing of the common warrants or pre-funded warrants on any securities exchange or other nationally recognized trading system.

The placement agents may distribute this prospectus supplement and the accompanying prospectus electronically.

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LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon by our counsel, Orrick, Herrington & Sutcliffe LLP, New York, New York. The placement agents are being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus supplement, the accompanying prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to you, free of charge, on the SEC's website at www.sec.gov and our website at www.durect.com. The references to www.durect.com in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein are inactive textual references only, and we have not incorporated by reference into this prospectus supplement or the accompanying prospectus the information contained on our website and you should not consider it to be part of this prospectus supplement or the accompanying prospectus.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3, including amendments, relating to the common stock offered by this prospectus supplement and the accompanying prospectus, which have been filed with the SEC. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits and schedules thereto, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of that contract or other document filed as an exhibit to the registration statement. For further information about us and the common stock offered by this prospectus supplement and the accompanying prospectus we refer you to the registration statement and the exhibits and schedules which may be obtained as described above.

INCORPORATION BY REFERENCE

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

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2021, filed with the SEC on March 8, 2022;
- the information specifically incorporated by reference into our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2021, from our definitive proxy statement on Schedule 14A, filed with the SEC on [April 25, 2022](#);

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- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2022](#), filed with the SEC on May 5, 2022, [June 30, 2022](#), filed with the SEC on August 5, 2022, and [September 30, 2022](#), filed with the SEC on November 3, 2022;
- our Current Reports on Form 8-K filed with the SEC on [February 11, 2022](#), [March 1, 2022](#), [March 3, 2022](#), [June 16, 2022](#), [July 5, 2022](#), [August 9, 2022](#), [September 26, 2022](#), [October 6, 2022](#), [November 22, 2022](#), [November 29, 2022](#), [December 20, 2022](#), [February 3, 2023](#) and [February 7, 2023](#); and
- the description of our common stock in our Registration Statements on [Form 8-A](#) (Commission File No. 000-31615), filed with the SEC on September 22, 2000, as updated by [Exhibit 4.2](#) to our Annual Report on [Form 10-K](#) for the year ended December 31, 2019, filed on March 5, 2020, including any subsequent amendment or any report filed for the purpose of updating such description; and all filings we make with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and before termination of the offering of the securities covered by this prospectus supplement, excluding, in each case, information deemed furnished and not filed.

In accordance with Section 412 of the Exchange Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus supplement and accompanying prospectus is delivered, on written or oral request of such person, a copy of any or all of the documents incorporated by reference in this prospectus supplement and the accompanying prospectus (not including exhibits to such documents, unless such exhibits are specifically incorporated by reference in this prospectus supplement or the accompanying prospectus or into such documents). Such requests may be directed to:

DURECT Corporation
10260 Bubb Road
Cupertino, CA 95014
Attn: Investor Relations
(408) 777-1417

PROSPECTUS

\$250,000,000



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

From time to time, we may offer and sell, in one or more offerings, in amounts, at prices and on terms determined at the time of any such offering, common stock, preferred stock, debt securities, warrants, either individually or in units, with a total value of up to \$250,000,000.

This prospectus describes some of the general terms that may apply to these securities. Each time securities are sold, the specific terms and amounts of the securities being offered, and any other information relating to the specific offering will be set forth 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 supplement, update or amend information contained in this prospectus. You should read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Our common stock trades on the Nasdaq Capital Market under the symbol "DRRX." On July 28, 2021, the last reported sale price of the common stock on the Nasdaq Capital Market was \$1.47 per share.

We may offer the securities in amounts, at prices and on terms determined at the time of offering. We may sell the securities directly to you, through agents we select or through underwriters and dealers we select. If we use agents, underwriters or dealers to sell the securities, we will name them and describe their compensation in the accompanying prospectus supplement.

Investing in our securities involves a high degree of risk. You should carefully read and consider the risk factors described in this prospectus, any accompanying prospectus supplement, any related free writing prospectus and in the documents incorporated by reference into this prospectus supplement. See "[Risk Factors](#)" beginning on page 3.

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

The date of this prospectus is August 16, 2021

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We are responsible for the information contained and incorporated by reference in this prospectus, in any accompanying prospectus supplement, and in any related free writing prospectus we prepare or authorize. We have not authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. If you are in a jurisdiction where offers to sell, or solicitations of offers to purchase, the securities offered by this documentation are unlawful, or if you are a person to whom it is unlawful to direct these types of activities, then the offer presented in this document does not extend to you. The information contained in this document speaks only as of the date of this document, unless the information specifically indicates that another date applies. Neither the delivery of this prospectus or any accompanying prospectus supplement, 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, any accompanying prospectus supplement or any free writing prospectus we may provide you in connection with an offering or 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 in this prospectus or any accompanying prospectus supplement, as well as the information incorporated by reference in this prospectus or any accompanying prospectus supplement, 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.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, we may, from time to time, issue and sell to the public any part of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$250,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell a type or series of securities under this prospectus, we will provide a prospectus supplement containing 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 and securities. The prospectus supplement and any free writing prospectus may also add, update or change information in this prospectus or in documents incorporated by reference in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus or in documents incorporated by reference in this prospectus, the statements made or incorporated by reference in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. We urge you to read carefully this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Where You Can Find More Information,” before buying any of the securities being offered.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement can be read at the SEC’s website or at the SEC offices mentioned under the heading “Where You Can Find More Information.”

This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the words “DURECT”, “we”, “us”, “our”, the “company” or similar references refer to DURECT Corporation and its subsidiaries.

We own various U.S. federal trademark registrations and applications and unregistered trademarks, including our corporate logo. This prospectus and the information incorporated herein by reference contains references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus and the information incorporated herein, including logos, artwork, and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks and trade names. We do not intend our use or display of other companies’ trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

ABOUT DURECT

We are a biopharmaceutical company with research and development programs broadly falling into two categories: (i) new chemical entities derived from our Epigenetics Regulator Program, in which we attempt to discover and develop molecules which have not previously been approved and marketed as therapeutics, and (ii) Proprietary Pharmaceutical Programs, in which we apply our formulation expertise and technologies largely to active pharmaceutical ingredients whose safety and efficacy have previously been established but which we aim to improve in some manner through a new formulation. We have several product candidates under development ourselves and also with third party collaborators. We manufacture and sell osmotic pumps used in laboratory research, and manufactures certain excipients for certain clients for use as raw materials in their products. In addition, we conduct research and development of pharmaceutical products in collaboration with third party pharmaceutical and biotechnology companies.

Additional details of our programs are contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

We were incorporated in Delaware in February 1998. We completed our initial public offering on September 28, 2000. Our principal executive offices are located at 10260 Bubb Road, Cupertino, California, 95014. Our telephone number is (408) 777-1417, and our website address is www.durect.com. The information on or accessible through our website does not constitute part of this prospectus supplement or the accompanying prospectus and should not be relied upon in connection with making any investment in our securities. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports available free of charge on our website as soon as reasonably practicable after we file these reports with the SEC. Our Code of Ethics can be found on our website.

Securities We Are Offering

We may offer shares of common stock, shares of preferred stock, debt securities, warrants, either individually or in units, with a total value of up to \$250,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering. Our common stock currently is quoted on the Nasdaq Capital Market under the symbol "DRRX." Shares of common stock that may be offered in this offering will, when issued and paid for, be fully paid and non-assessable.

We refer to our common stock, preferred stock, debt securities, warrants and units in this prospectus as "securities." This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, as described below under "Plan of Distribution."

RISK FACTORS

Investing in our securities involves a high degree of risk. Before you invest in our securities, in addition to the other information, documents or reports incorporated by reference in this prospectus and any prospectus supplement or other offering materials, you should carefully consider the risk factors in this section, the section entitled “Risk Factors” in any prospectus supplement as well as our most recent Annual Report on Form 10-K, and in our Quarterly Reports on Form 10-Q filed subsequent to the Annual Report on Form 10-K, which are incorporated by reference into this prospectus and any prospectus supplement in their entirety, as the same may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. Each of the risks described in these sections and documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment. See “Where You Can Find More Information.”

CAUTIONARY NOTE REGARDING FORWARD LOOKING INFORMATION

This prospectus and the documents we incorporate by reference in this prospectus contain 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, or the Exchange Act. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, projected timelines, prospects, plans and objectives of management are forward-looking statements. We may, in some cases, use words such as “believe,” “anticipate,” “should,” “intend,” “plan,” “will,” “estimate,” “project,” “expect” and similar expressions, although not all forward-looking statements contain these identifying words. These statements are based on assumptions and assessments made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of risks and uncertainties, including those risks described or incorporated by reference in this prospectus under “Risk Factors” above.

Forward-looking statements included or incorporated by reference in this prospectus include, for example, statements about:

- the clinical trial plans and timelines for DUR-928;
- potential uses and benefits of DUR-928 to treat alcohol-associated hepatitis (also called alcoholic hepatitis or AH), non-alcoholic steatohepatitis (NASH), or other conditions;
- the results and timing of clinical trials, the ability to enroll patients in clinical trials in a timely and cost-effective manner;
- the likelihood of future clinical trial results of DUR-928 being similar to results from previous trials, the possible commencement of future clinical trials, enrollment rates and timing of announcements of the results from our clinical trials;
- our intention to seek, and ability to enter into and maintain strategic alliances and collaborations, including for the commercialization of POSIMIR;
- POSIMIR’s commercial prospects, differentiating product attributes, potential for reimbursement and formulary access, the timing of post-marketing commitments and timing of potential commercial partnership and launch;
- the potential benefits and uses of our products, product candidates and technologies, including POSIMIR, DUR-928 and our SABER and CLOUD technologies;
- the potential earn-out payments we may receive from Indivior related to the commercialization of PERSERIS, and milestone and royalty payments we may receive from Santen or Orient Pharma;
- the progress of our third-party collaborations, including estimated milestones;
- responsibilities of our third-party collaborators, including the responsibility to make cost reimbursement, milestone, royalty and other payments to us, and our expectations regarding our collaborators’ plans with respect to our product candidates and continued development of our product candidates;
- our responsibilities to our third-party collaborators, including our responsibilities to conduct research and development, clinical trials and/or manufacture products or product candidates;
- market opportunities for product candidates in our product development pipeline;
- potential regulatory filings for or approval of DUR-928 or any of our or any third parties’ other product candidates;
- the progress and results of our research and development programs and our evaluation of additional development programs;

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- requirements for us to purchase pre-clinical, clinical trial and commercial supplies of product candidates and/or products, as well as raw materials from third parties, and the ability of third parties to provide us with our requirements for such supplies and raw materials;
- conditions for obtaining regulatory approval of our product candidates;
- submission and timing of applications for regulatory approval and timing of responses to our regulatory submissions;
- the impact of FDA, EMA and other government regulation on our business;
- our ability to obtain, assert and protect patents and other intellectual property rights, including intellectual property licensed to our collaborators, as well as avoiding the intellectual property rights of others;
- products and companies that will compete with our products and the product candidates we develop and/or license to third-party collaborators;
- the possibility we may commercialize our own products and build up our commercial, sales and marketing capabilities and other required infrastructure;
- the possibility that we may develop additional manufacturing capabilities;
- our employees, including the number of employees and the continued services of key management, technical and scientific personnel;
- our future performance, including our anticipation that we will not derive meaningful revenues from our product candidates in development for at least the next twelve months, potential for future inventory write-offs and our expectations regarding our ability to achieve profitability;
- sufficiency of our cash resources, anticipated capital requirements and capital expenditures, our ability to comply with covenants of our term loan, and our need or desire for additional financing, including potential sales under our shelf registration statement;
- our expectations regarding research and development expenses, and selling, general and administrative expenses;
- the composition of future revenues; and
- accounting policies and estimates.

Any such forward-looking statements are not guarantees of future performance and actual results, developments and business decisions may differ from those contemplated by such forward-looking statements. We disclaim any duty to update any forward-looking statements. You should also carefully consider other information set forth in reports or other documents that we file with the SEC.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of securities offered by this prospectus will be used for general corporate purposes, which may include clinical trials, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions. Pending such uses, we may invest the net proceeds in investment grade interest-bearing securities.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from this offering and progress with the commercial development of our products as well as our clinical development programs and product candidates. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of securities.

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DESCRIPTION OF CAPITAL STOCK

This section describes the general terms and provisions of the shares of our common stock, \$0.0001 par value per share, and preferred stock, \$0.0001 par value per share, that we may issue. This description is only a summary. Our certificate of incorporation and our bylaws have been filed as exhibits to our periodic reports filed with the SEC, which are incorporated by reference into this prospectus. You should read our certificate of incorporation and our bylaws for additional information before you buy any of our securities. See “Where You Can Find More Information.”

Common Stock

General. We are authorized to issue up to 350,000,000 shares of common stock. As of July 28, 2021, there were 227,496,180 shares of common stock issued and outstanding.

Voting Rights. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably dividends, if any, as may be declared by our board of directors out of funds legally available therefor. We have not declared any dividends and have no current plans to do so.

Other Rights. Upon our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and the common stock offered, when issued, will be, fully paid and nonassessable.

Transfer Agent and Registrar for Common Stock

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. Its offices are located at 250 Royall Street, Canton, MA 02021, and its telephone number is (800) 736-3001.

Preferred Stock

General. We are authorized to issue up to 10,000,000 shares of preferred stock. As of July 28, 2021, no shares of preferred stock were issued and outstanding. Our board of directors has the authority, without further action by our stockholders, to issue from time to time the preferred stock in one or more series, and to fix the number of shares, designations, preferences, powers, and other rights and qualifications, limitations or restrictions as our board of directors may authorize, including:

- the distinctive designation of each series and the number of shares that will constitute the series;
- the purchase price;
- the voting rights, if any, of shares of the series and the terms and conditions of the voting rights;
- the dividend rate on the shares of the series, the dates on which dividends are payable, any restriction, limitation or condition upon the payment of dividends, whether dividends will be cumulative, and the dates from and after which dividends shall accumulate;
- the prices at which, and the terms and conditions on which, the shares of the series may be redeemed, if the shares are redeemable;

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- the procedures for any auction or remarketing, if any;
- the terms and conditions of a sinking or purchase fund for the purchase or redemption of shares of the series, if such a fund is provided;
- any preferential amount payable upon shares of the series in the event of the liquidation, dissolution or winding up of, or upon the distribution of any of our assets; and
- any listing of the preferred stock on any securities exchange or market;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- the prices or rates of conversion or exchange at which, and the terms and conditions on which, the shares of the series may be converted or exchanged into other securities, if the shares are convertible or exchangeable; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

When we issue shares of preferred stock, the shares will be fully paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

Delaware General Corporation Law (the “DGCL”) provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

The issuance of preferred stock could decrease the amount of earnings and assets available for distribution to holders of common stock or adversely affect the rights and powers, including voting rights, of the holders of common stock. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company, which could depress the market price of our common stock.

Series A Participating Preferred Stock. Of the 10,000,000 shares of preferred stock currently authorized, we have currently designated 150,000 shares as series A participating preferred stock. As of July 28, 2021, no shares of series A participating preferred stock were issued and outstanding.

Voting Rights. The holders of our series A participating preferred stock are entitled to 1,000 votes per share, subject to certain adjustments, for each share held of record on all matters submitted to a vote of the stockholders. Except as otherwise provided, holders of shares of series A participating preferred stock and the holders of shares of common stock shall vote together as one class on all matters submitted to a vote of the stockholders.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of series A participating preferred stock are entitled to receive ratably dividends, if any, as may be declared by our board of directors out of funds legally available therefor, to be paid on a quarterly basis in an amount per share equal to, subject to certain adjustments, 1,000 times the aggregate per share amount of all cash dividends and 1,000 times the aggregate per share amount of all non-cash dividends or other distributions other than a dividend payable in shares of common stock or a subdivision of the outstanding shares of common stock. We will not declare any dividend on, make any distribution on or redeem or purchase or otherwise acquire for consideration any shares of common stock after the first issuance of a share or fraction of a share of series A participating preferred stock unless we concurrently declare a dividend on the series A participating preferred stock. When dividends payable to holders of series A participating preferred stock are in arrears, we will not take certain actions until such time as all accrued and unpaid dividends and distributions on shares of series A participating preferred stock are paid in full. We have not declared any dividends and have no plans to do so.

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Other Rights. Upon our liquidation, dissolution or winding up, no distribution shall be made to the holders of shares ranking junior to the series A participating preferred stock unless the holders of series A participating preferred stock have received an amount equal to the accrued and unpaid dividends and distributions, whether or not declared, to the date of such payment plus an amount equal to the greater of (i) \$1,000 per share, or an adjusted amount if we do not have sufficient assets, and (ii) 1,000 times the aggregate per share amount to be distributed to the holders of common stock, subject to certain adjustments. Upon a consolidation, merger, combination or other transaction in which shares of our common stock are exchanged for or changed into other stock or securities, cash and/or any other property, each share of series A participating preferred stock shall be exchanged or changed in an amount equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property into which or for which each share of common stock is changed or exchanged, subject to certain adjustments. Holders of series A participating preferred stock have no redemption rights. All outstanding shares of series A participating preferred stock, when issued, will be fully paid and nonassessable.

ADDITIONAL INFORMATION CONCERNING OUR CAPITAL STOCK

Anti-Takeover Effects of Our Certificate of Incorporation and Bylaws

Our certificate of incorporation and by-laws include a number of provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions:

- authorize the issuance of “blank check” preferred stock without any need for action by stockholders;
- provide for a classified board of directors with staggered terms;
- require supermajority stockholder voting to effect certain amendments to our certificate of incorporation and by-laws;
- eliminate the ability of stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent; and
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings. These provisions could discourage, delay or prevent certain types of transactions involving an actual or potential change in control of us, including transactions in which stockholders might otherwise receive a premium for their shares over current market prices.

Anti-Takeover Effects of Provisions of Delaware Law

We are subject to the provisions of Section 203 of the DGCL. In general, the statute 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 that person became an “interested stockholder,” unless the business combination was approved in a prescribed manner. A “business combination” includes a merger, asset sale or other transaction resulting in a financial benefit to an interested stockholder. An “interested stockholder” is a person who, together with affiliates and associates, owns, or, within the three years prior to the determination of interested stockholder status, owned, 15% or more of our outstanding voting stock.

Section 203 of the DGCL makes it more difficult for an interested stockholder to effect various business combinations with a corporation for a three-year period. This statute could prohibit or delay mergers or other takeover or change in control attempts not approved in advance by our board of directors, and as a result could discourage attempts to acquire us, which could depress the market price of our common stock.

Limitation of Liability and Indemnification

To the fullest extent permitted by the Delaware law, our certificate of incorporation provides that directors shall not be personally liable to us or any of our stockholders for monetary damages for breach of fiduciary duty as a director. However, this provision does not eliminate the duty of care, and in appropriate circumstances, equitable remedies such as injunctive or other forms of nonmonetary relief that will remain available under Delaware law. In addition, each director will continue to be subject to liability for (i) breach of the director’s duty of loyalty to us or our stockholders, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) violating Section 174 of the DGCL or (iv) any transaction from which the director derived an improper personal benefit. The provision also does not affect a director’s responsibilities under any other law, such as the federal securities laws or state or federal environmental laws.

Our bylaws provide that we shall, to the maximum extent and in the manner permitted by the Delaware law, indemnify each of our directors and officers against expenses (including attorneys’ fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by

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reason of the fact that such person is or was an agent of our company. Our bylaws also provide that we shall have the power, to the maximum extent and in the manner permitted by the Delaware law, to indemnify each of our employees and agents against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of our company. Our bylaws provide that expenses incurred in defending any such action or proceeding shall be paid in advance of the final disposition of such action or proceeding upon the receipt of an undertaking by or on behalf of the indemnified party to repay such amount if it shall be ultimately determined that the indemnified party is not entitled to be indemnified as authorized by our bylaws. The indemnification provided by our bylaws shall not be deemed exclusive of any other rights to which those seeking indemnification may have been entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, to the extent that such additional rights to indemnification are authorized in our certificate of incorporation.

We also maintain liability insurance for our officers and directors and have entered into indemnification agreements with them.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements, does not purport to be complete and is subject to, and qualified in its entirety by reference to, the form of indenture filed as an exhibit to the registration statement of which this prospectus is a part, as it may be supplemented, amended or modified from time to time, as well as the notes and supplemental agreements relating to each series of debt securities that will be incorporated by reference as exhibits to the registration statement that includes this prospectus or as exhibits to a current report on Form 8-K if we offer debt securities.

We will issue senior debt securities under one or more senior indentures that we will enter into with a trustee named in the relevant senior indenture. We will issue subordinated debt securities under one or more subordinated indentures that we will enter into with a trustee named in the relevant subordinated indenture. We have filed a form of indenture as an exhibit to the registration statement of which this prospectus is a part. We use the terms “indenture” and “indentures” in this prospectus to refer to both the senior indenture and the subordinated indenture.

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

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

General

We will describe in each prospectus supplement the following terms relating to a series of debt securities:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, the terms and who the depositary will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a U.S. person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

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- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemptions provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability and/or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends and make distributions in respect of our capital stock and the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with stockholders and affiliates;
 - issue or sell stock of our subsidiaries; or
 - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of any material or special U.S. federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof; and

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- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

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

Consolidation, Merger or Sale

Any successor to or acquiror of the indentures must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

Unless otherwise provided in any applicable prospectus supplement, documents incorporated by reference or free writing prospectus, the following will be events of default under the indenture with respect to each series of debt securities issued thereunder:

- if we fail to pay interest when due and payable and our failure continues for 30 days, or within such other time period as may be specified in the applicable indenture, and the time for payment has not been extended or deferred;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable and the time for payment has not been extended or delayed;
- if specified events of bankruptcy, insolvency or reorganization occur; and
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 60 days, or within such other time period as may be specified in the applicable indenture, after we receive notice from the debenture trustee or holders of at least a majority in principal amount of the outstanding debt securities of an affected series, or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of the applicable series.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the debenture trustee or the holders of at least 25%, or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the debenture trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the debenture trustee or any holder.

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

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

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act of 1939, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

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

- the holder has given written notice to the debenture trustee of a continuing event of default with respect to that series;
- the holders of at least 25% (or, in the case of a default of the type described under subsection (d), above, a majority in principal amount of the outstanding debt securities of an affected series), or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the debenture trustee to institute the proceeding as trustee; and
- the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 60 days, or within such other time period as may be specified in the applicable indenture, after the notice, request and offer of indemnity.

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

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

Modification of Indenture; Waiver

We and the debenture trustee may change an indenture without the consent of any holders with respect to specific matters:

- to evidence the succession of another corporation to us and the assumption by any such successor of our covenants in such indenture and in the debt securities issued thereunder;
- to add to our covenants or to surrender any right or power conferred on us pursuant to the indenture;
- to establish the form and terms of debt securities issued thereunder;
- to evidence and provide for a successor trustee under such indenture with respect to one or more series of debt securities issued thereunder or to provide for or facilitate the administration of the trusts under such indenture by more than one trustee;
- to cure any ambiguity, to correct or supplement any provision in the indenture that may be defective or inconsistent with any other provision of the indenture or to make any other provisions with respect to matters or questions arising under such indenture; provided that no such action adversely affects the interests of the holders of any series of debt securities issued thereunder in any material respect;

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- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issue, authentication and delivery of securities under the indenture;
- to add any additional events of default with respect to all or any series of debt securities;
- to supplement any of the provisions of the indenture as may be necessary to permit or facilitate the defeasance and discharge of any series of debt securities, provided that such action does not adversely affect the interests of any holder of an outstanding debt security of such series or any other security in any material respect;
- to make provisions with respect to the conversion or exchange rights of holders of debt securities of any series;
- to pledge to the trustee as security for the debt securities of any series any property or assets;
- to add guarantees in respect of the debt securities of one or more series;
- to change or eliminate any of the provisions of the indenture, provided that any such change or elimination becomes effective only when there is no security of any series outstanding created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;
- to provide for certificated securities in addition to or in place of global securities;
- to qualify such indenture under the Trust Indenture Act of 1939, as amended;
- with respect to the debt securities of any series, to conform the text of the indenture or the debt securities of such series to any provision of the description thereof in our offering memorandum or prospectus relating to the initial offering of such debt securities, to the extent that such provision, in our good faith judgment, was intended to be a verbatim recitation of a provision of the indenture or such securities; or
- to make any other change that does not adversely affect the rights of holders of any series of debt securities issued thereunder in any material respect.

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

- extending the fixed maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any debt securities;
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver; or
- make any change that adversely affects the right to convert or exchange any security into or for common stock or other securities, cash or other property in accordance with the terms of the applicable debt security.

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

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

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

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

Form, Exchange and Transfer

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

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

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

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

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

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

Repurchases on the Open Market

We, or an affiliate of ours, may at any time or from time to time repurchase any debt security in the open market or otherwise. Such debt securities may, at our option (or our affiliate's option), be held, resold or surrendered to the trustee for cancellation.

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Information Concerning the Debenture Trustee

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

Payment and Paying Agents

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

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

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

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

Subordination of Subordinated Debt Securities

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

Outstanding Debt Securities

We have no outstanding registered debt securities.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under that prospectus supplement may differ from the terms described below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements does not purport to be complete and is subject to, and qualified in its entirety by reference to, the form of warrant agreement and form of warrant certificate relating to each series of warrants that will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a current report on Form 8-K if we offer warrants.

General

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

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock, the number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise

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specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. Eastern Time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

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

Outstanding Warrants

We have no outstanding warrants.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements, does not purport to be complete and is subject to, and qualified in its entirety by reference to, the form of unit agreement and form of unit certificate relating to each series of units that will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a current report on Form 8-K if we offer units.

General

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

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

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

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

Issuance in Series

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

Enforceability of Rights by Holders of Units

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

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Title

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

Outstanding Units

We have no outstanding units.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depositary or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

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For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

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Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- The depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security. We and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depositary in any way;
- The depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well;
- Financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities; and
- There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

The global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

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The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together through any of the following methods:

- to or through one or more underwriters or dealers in a public offering and sale by them;
- directly to investors;
- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions other than on these exchanges or systems or in the over-the-counter market;
- through agents;
- through block trades in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- through any combination of these methods of sale; or
- in any manner, as provided in the applicable prospectus supplement.

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 times of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We will describe the method of distribution of the securities in the applicable prospectus supplement. We may also determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is traded on the Nasdaq Capital Market. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or our purchasers (as their agents in connection with the sale of the securities). In addition, underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the

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form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they act as agent. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions, or profits on resale received by the underwriters, dealers or agents may be treated as underwriting discounts and commissions. The prospectus supplement will identify any such underwriter, dealer or agent, and describe any compensation received by them from us. Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

We may sell the 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.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

Any person participating in the distribution of common stock registered under the registration statement that includes this prospectus will be subject to applicable provisions of the Exchange Act, and the applicable SEC rules and regulations, including, among others, Regulation M, which may limit the timing of purchases and sales of any of our common stock by any such person. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of our common stock to engage in market-making activities with respect to our common stock. These restrictions may affect the marketability of our common stock and the ability of any person or entity to engage in market-making activities with respect to our common stock.

We may grant underwriters who participate in the distribution of the securities an option to purchase additional securities to cover overallocments, if any, in connection with the distribution. Any underwriter may engage in overallocation, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M that stabilize, maintain or otherwise affect the price of the offered securities. Overallocation 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 common stock 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 common stock originally sold by the dealer is purchased in a covering transaction to cover short positions. Those activities may cause the price of the common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. If any such activities will occur, they will be described in the applicable prospectus supplement.

Underwriters or agents and their associates may be customers of, engage in transactions with or perform services for us in the ordinary course of business and any such relationships will be described in the applicable prospectus supplement.

If more than 10% of the net proceeds of any offering of securities made under this prospectus will be received by FINRA members participating in the offering or affiliates or associated persons of such FINRA members, the offering will be conducted in accordance with FINRA Conduct Rule 5121.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

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LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities being offered by this prospectus will be passed upon by Orrick, Herrington & Sutcliffe LLP, New York, New York. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in an applicable prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2020, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC's website at www.sec.gov.

We have filed with the SEC a registration statement on Form S-3 relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement or documents incorporated by reference in the registration statement. Whenever a reference is made in this prospectus to a contract or other document of ours, the reference is only a summary and you should refer to the exhibits that are a part of the registration statement for a copy of the contract or other document. You may review a copy of the registration statement through the SEC's website, as provided above.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC and applicable law allows us to "incorporate by reference" the information from other documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings (including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement) we will make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act until the termination of the registration statement of which this prospectus is a part (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2020 filed with the SEC on March 5, 2021;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2021 and June 30, 2021 filed with the SEC on [May 5, 2021](#) and [July 30, 2021](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 5, 2021](#), [January 25, 2021](#), [February 2, 2021](#), [February 4, 2021](#), [February 5, 2021](#), [February 23, 2021](#), [March 4, 2021](#), [March 9, 2021](#), [June 2, 2021](#), [June 16, 2021](#) (as amended on Form 8-K/A filed with the SEC on [June 25, 2021](#)), and [June 23, 2021](#) (in each case, except for information contained therein which is furnished rather than filed);

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- our definitive [Proxy Statement](#) for our Annual Meeting of Shareholders held on June 15, 2021 filed with the SEC on April 23, 2021 (other than information furnished rather than filed); and
- the description of our common stock included in our registration statement on [Form 8-A12G/A](#) (File No. 000-31615) filed with the SEC on June 24, 2003, as updated by [Exhibit 4.2](#) to our Annual Report on [Form 10-K](#) for the year ended December 31, 2020, filed with the SEC on March 5, 2021, and as subsequently amended or updated.

Any statement contained in this prospectus, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus or any document incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following:

DURECT Corporation
10260 Bubb Road
Cupertino, CA 95014
Attn: Investor Relations
(408) 777-1417

You may also access these documents, free of charge on the SEC's website at www.sec.gov or on the "Investors" page of our website at www.durect.com. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information on, or that can be accessed from, our website as part of this prospectus or any accompanying prospectus supplement.

1,700,000 Shares of Common Stock

Pre-Funded Warrants to Purchase up to 300,000 Shares of Common Stock

Common Warrants to Purchase up to 2,000,000 Shares of Common Stock



PROSPECTUS SUPPLEMENT

Cantor

Oppenheimer & Co.

February 3, 2023
