

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

Amendment No. 1

to

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

**OPUS GENETICS, INC.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation or  
organization)

11-3516358  
(I.R.S. Employer Identification No.)

8 Davis Drive, Suite 220  
Durham, NC 27713  
(248) 957-9024  
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Dr. George Magrath  
Chief Executive Officer  
Opus Genetics, Inc.  
8 Davis Drive, Suite 220  
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(248) 957-9024  
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**Approximate date of commencement of proposed sale to the public:** From time to time after this Registration Statement becomes effective.  
If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:   
If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:   
If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.   
If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.   
If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.   
If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.   
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.  
Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
Emerging growth company

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

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

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

Subject to Completion Dated April 20, 2026

PROSPECTUS



**OPUS GENETICS, INC.**

**7,374,632 Shares of Common Stock  
Offered by the Selling Stockholders**

This prospectus relates to the resale or other disposition, from time to time, by the selling stockholders named in this prospectus (the “selling stockholders”) of up to 7,374,632 shares (the “Private Placement Conversion Shares”) of our common stock, par value \$0.0001 per share (“Common Stock”), issuable upon the conversion of 7,374,632 shares (the “Private Placement Preferred Shares”) of Series B Non-Voting Convertible Preferred Stock, par value \$0.0001 (the “Series B Preferred Stock”). Subject to certain beneficial ownership limitations set by each preferred stockholder, each share of Series B Preferred Stock will automatically convert on or about April 23, 2026 into one share of Common Stock. The shares of Common Stock registered by this prospectus are referred to herein as the “Shares.”

The Private Placement Preferred Shares were issued and sold to the selling stockholders in a private placement (the “Private Placement”), which closed on February 18, 2026. We are not selling any Shares under this prospectus and will not receive any of the proceeds from the sale or other disposition of Shares by the selling stockholders. Our registration of shares of Common Stock covered by this prospectus does not mean that the selling stockholders will offer or sell any such Shares.

We are registering the offer and resale of the Shares to satisfy a covenant set forth in the registration rights agreement entered into on February 18, 2026, concurrently with the closing of the Private Placement, pursuant to which we agreed to register the resale of the Shares within a limited period of time following the date of the registration rights agreement.

Any shares of our common stock subject to resale hereunder will have been issued by us and received by the selling stockholders prior to any resale of such shares pursuant to this prospectus.

The selling stockholders, or their donees, pledgees, transferees or other successors-in-interest, may sell the Shares on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, on the over-the-counter market, in one or more transactions otherwise than on these exchanges or systems, such as privately negotiated transactions, or using a combination of these methods, and at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. See the disclosure under the heading “Plan of Distribution” elsewhere in this prospectus for more information about how the selling stockholders may sell or otherwise dispose of their Shares hereunder.

Our Common Stock is listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “IRD”. On April 17, 2026, the last reported sale price of our Common Stock was \$5.75.

We are a “smaller reporting company” under federal securities laws and as such, have elected to comply with reduced public company reporting requirements for this prospectus and the documents incorporated by reference herein and may elect to comply with reduced public company reporting requirements in future filings. See “Prospectus Summary—Implications of Being a Smaller Reporting Company.”

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

**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. Any representation to the contrary is a criminal offense.**

The date of this prospectus is , 2026.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), using a “shelf” registration process. The selling stockholders may resell, from time to time, in one or more offerings, shares of our common stock offered by this prospectus. Information about the selling stockholders may change over time. When the selling stockholders sell shares of our common stock under this prospectus, we will, if necessary and required by law, provide a prospectus supplement that will contain specific information about the terms of that offering. Any prospectus supplement may also add to, update, modify or replace information contained in this prospectus. If a prospectus supplement is provided and the description of the offering in the prospectus supplement varies from the information in this prospectus, you should rely on the information in the prospectus supplement. You should carefully read this prospectus and the accompanying prospectus supplement, if any, along with all of the information incorporated by reference herein and therein, before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus and any applicable prospectus supplement. We have not, and the selling stockholders have not, authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. This prospectus is not an offer to sell, nor are the selling stockholders seeking an offer to buy, the shares offered by this prospectus in any jurisdiction where the offer and sale is not permitted. No offers or sales of any of the shares of our common stock are to be made in any jurisdiction in which such an offer or sale is not permitted. You should assume that the information contained in this prospectus or any applicable prospectus supplement is accurate only as of the date on the front cover thereof or the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any applicable prospectus supplement or any sales of the shares of our Common Stock offered hereby or thereby.

You should read the entire prospectus and any prospectus supplement and any related issuer free writing prospectus, as well as the documents incorporated by reference into this prospectus or any prospectus supplement or any related issuer free writing prospectus, before making an investment decision. Neither the delivery of this prospectus, any prospectus supplement or any issuer free writing prospectus nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement or issuer free writing prospectus, as applicable, has not changed since the date of this prospectus or any prospectus supplement or any issuer free writing prospectus. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference herein or therein is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operation and prospects may have changed since that date.

The terms “Opus Genetics,” the “Company,” “our,” “us” and “we,” as used in this prospectus, refer to Opus Genetics, Inc., unless we state otherwise or the context indicates otherwise. This prospectus contains trade names, trademarks and service marks of others, which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or TM symbols.

## SUMMARY

*This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, any applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our consolidated financial statements, and the exhibits to the registration statement of which this prospectus is a part.*

### Company Overview

Opus Genetics, Inc. (“Opus”, “we,” “us,” “our” or the “Company”) is a clinical-stage biopharmaceutical company developing gene therapies for the treatment of inherited retinal diseases (IRDs) and other ophthalmologic disorders. The pipeline includes adeno-associated virus (AAV)-based gene therapies that address mutations in genes that cause different forms of bestrophinopathy, Leber congenital amaurosis (LCA) and retinitis pigmentosa. The Company’s most advanced gene therapy program is designed to address mutations in the LCA5 gene, which encodes the lebercilin protein and is currently being evaluated in a Phase 1/2 open-label, dose-escalation trial. The pipeline also includes Phentolamine Ophthalmic Solution 0.75%, a non-selective alpha-1 and alpha-2 adrenergic antagonist to reduce pupil size, and APX3330, a novel small-molecule inhibitor of Ref-1 to slow the progression of non-proliferative diabetic retinopathy. Phentolamine Ophthalmic Solution 0.75% is currently being evaluated in Phase 3 trials for presbyopia and dim (mesopic) light vision disturbances.

### Private Placement of Shares

On February 13, 2026, we entered into a securities purchase agreement (the “Securities Purchase Agreement”) with various investors (the “Purchasers”) for a private placement (the “Private Placement”) of an aggregate of 7,374,632 shares of Series B Preferred Stock, par value \$0.0001 per share, at a price of \$3.39 per share. Pursuant to the terms of the Securities Purchase Agreement, we have agreed to submit to our stockholders the approval of an increase to the our authorized shares of our common stock, par value \$0.0001 per share (the “Common Stock”), sufficient to permit conversion of all issued and outstanding Series B Preferred Stock into shares of Common Stock in accordance with Nasdaq Stock Market Rules, at our 2026 annual meeting of stockholders (the “Conversion Proposal”). Having received stockholder approval of the Conversion Proposal, each share of Series B Preferred Stock will automatically convert into one share of Common Stock, subject to certain beneficial ownership limitations set by each Purchaser. Except as otherwise required by law, the Series B Preferred Stock does not have voting rights.

The Private Placement closed on February 18, 2026. Pursuant to the Securities Purchase Agreement, the Purchasers purchased the Series B Preferred Stock at a purchase price of \$3.39 per share for an aggregate purchase price of approximately \$25.0 million. We expect to use the net proceeds from the Private Placement to advance our gene therapy clinical programs, as well as for working capital and general corporate purposes.

Pursuant to the Securities Purchase Agreement, we agreed not to issue (or enter into any agreement to issue) any shares of Common Stock or Common Stock equivalents, subject to certain exceptions, until thirty (30) days after the date the Registration Statement (defined below) is declared effective by the Securities and Exchange Commission or following certain other customary occurrences.

The Securities Purchase Agreement contains customary representations, warranties and agreements by the Company, indemnification obligations of the Company and the Purchasers, including for liabilities under the Securities Act of 1933, as amended (the “Securities Act”), and other obligations of the parties. The representations, warranties and covenants contained in the Securities Purchase Agreement were made only for purposes of such Securities Purchase Agreement and are made as of specific dates, are solely for the benefit of the parties (except as specifically set forth therein), may be subject to qualifications and limitations agreed upon by the parties in connection with negotiating the terms of the Securities Purchase Agreement, instead of establishing matters as facts, and may be subject to standards of materiality and knowledge applicable to the contracting parties that differ from those applicable to the investors generally. Investors should not rely on the representations, warranties and covenants or any description thereof as characterizations of the actual state of facts or condition of the Company.

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In connection with the Private Placement, we also entered into a registration rights agreement, dated February 18, 2026 (the “Registration Rights Agreement”), with the Purchasers, pursuant to which the Company is obligated (i) to prepare and file an initial registration statement (the “Initial Registration Statement”) with the Securities and Exchange Commission (the “SEC”) as soon as reasonably practicable, but in no event later than April 19, 2026 (the “Filing Deadline”), and to use reasonable best efforts to have the registration statement declared effective within 60 days of the earlier of (a) the filing date of the Initial Registration Statement and the Filing Deadline, and (b) the fifth business day after the Company is notified in writing by the SEC that the Initial Registration Statement will not be “reviewed” or will not be subject to further review, subject to the approval of the Conversion Proposal.

We have also agreed, among other things, to indemnify the Purchasers and each of their respective officers, directors, members, employees, partners, managers, stockholders, affiliates, investment advisors and agents, each person who controls any such Purchaser and the officers, directors, members, employees, partners, managers, stockholders, affiliates, investment advisors and agents of each such controlling person from certain liabilities and pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incident to our obligations under the Registration Rights Agreement.

The foregoing descriptions of the Securities Purchase Agreement and the Registration Rights Agreement do not purport to be complete and are qualified in their entirety by reference to the full text thereof, copies of each of which have previously been filed as exhibits to our filings with the SEC.

### **Implications of Being a Smaller Reporting Company**

We are a “smaller reporting company” as defined in the Exchange Act. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting Common Stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and our voting and non-voting Common Stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

### **Corporate Information**

We principal executive offices are located at 8 Davis Drive, Suite 220, Durham, NC 27713. Our telephone number is (248) 957-9024. Our website address is [www.opusgtx.com](http://www.opusgtx.com). Additionally, our filings with the SEC are posted on our website at [www.opusgtx.com](http://www.opusgtx.com). The information found on or accessible through our website is not part of this or any other report we file with or furnish to the SEC. The public can also obtain copies of these filings by accessing the SEC’s website at <http://www.sec.gov>.

## THE OFFERING

<b>Shares offered by the selling stockholders</b>	Up to 7,374,632 shares of our common stock par value \$0.0001 per share, issuable upon the conversion of 7,374,632 of Series B Preferred Stock.
<b>Shares outstanding</b>	71,402,472.
<b>Selling stockholders</b>	All of the shares of our common stock are being offered by the selling stockholders. See “The Selling stockholders” beginning on page <a href="#">9</a> for additional information on the selling stockholders.
<b>Use of Proceeds</b>	We will not receive any proceeds from the sale of the shares in this offering by the selling stockholders under this prospectus. The net proceeds from the sale of the Shares offered by this prospectus will be received by the selling stockholders. See “Use of Proceeds” beginning on page <a href="#">8</a> for additional information on the use of proceeds.
<b>Plan of Distribution</b>	The selling stockholders, or their pledgees, donees, transferees, distributees, beneficiaries or other successors-in-interest, may offer or sell the shares of our common stock offered under this prospectus from time to time through public or private transactions at our prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders may also resell the shares of our common stock offered under this prospectus to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. See “Plan of Distribution” beginning on page <a href="#">11</a> for additional information on the methods of sale that may be used by the selling stockholders.
<b>Risk Factors</b>	Investing in our securities involves risk. You should carefully read and consider the information beginning on page <a href="#">5</a> of this prospectus set forth under the heading “Risk Factors” and all other information set forth in this prospectus and the documents incorporated herein and therein by reference before deciding to invest in our common stock.
<b>Nasdaq symbol for common stock</b>	“IRD”

The number of shares of Common Stock shown above to be outstanding is based on 71,402,472 shares outstanding as of March 31, 2026 and excludes:

- 22,904,879 shares of Common Stock issuable upon the exercise of warrants outstanding as of March 31, 2026, with a weighted-average exercise price of \$1.31;
- 16,009,928 shares of Common Stock issuable upon the exercise of pre-funded warrants outstanding as of March 31, 2026, with a weighted-average exercise price of \$0.0001;
- 7,002,913 shares of Common Stock issuable upon the exercise of stock options outstanding as of March 31, 2026, under our 2018 Equity Incentive Plan, 2020 Equity Incentive Plan and 2021 Inducement Plan, with a weighted-average exercise price of \$2.10 per share;
- 1,032,830 shares of Common Stock reserved for future issuance under our 2020 Equity Incentive Plan and 2021 Inducement Plan outstanding as of March 31, 2026;

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- 4,917,328 unvested restricted stock awards as of March 31, 2026; and
- 7,374,632 shares of Common Stock issuable upon the conversion of the Series B Preferred Stock issued in the Private Placement.
- 1,116,070 shares of Common Stock issuable pursuant to a stock purchase and conversion agreement entered into on April 2, 2026, and up to 2,306,547 shares of Common Stock that may be issuable upon conversion of senior secured notes to be issued pursuant to a note purchase agreement entered into on April 2, 2026, in each case as further described in our Current Report on Form 8-K filed with the SEC on April 7, 2026.

Unless we specifically state otherwise, this prospectus reflects and assumes no exercise of outstanding options, warrants or restricted stock units.

## RISK FACTORS

*Investing in our securities involves risk. You should carefully consider the specific risks discussed or incorporated by reference into this prospectus or any applicable prospectus supplement, together with all the other information contained or incorporated by reference in this prospectus or any applicable prospectus supplement. You should also consider the risks, uncertainties and assumptions discussed under the caption “Risk Factors” included in our Annual Report on Form 10-K for the year ended December 31, 2025 and in subsequent filings, which are incorporated by reference into this prospectus. These risk factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future or by a prospectus supplement relating to a particular offering of our securities. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of your investment.*

***The sale of a substantial number of shares of our common stock in the public market, including resale of the Shares issued to the selling stockholders, could adversely affect the prevailing market price for our common stock.***

We are registering for resale 7,374,632 shares of Common Stock issued to the selling stockholders to fulfill our contractual obligations under the Registration Rights Agreement. Sales of substantial amounts of shares of our Common Stock in the public market, or the perception that such sales might occur, could adversely affect the market price of our Common Stock. We cannot predict if and when the selling stockholders may sell such shares in the public markets. Furthermore, in the future, we may issue additional shares of Common Stock or other equity or debt securities exercisable for, or convertible into, shares of Common Stock. Any such issuances could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

## FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of the safe harbor provisions of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements relate to us, our business prospects and our results of operations and are subject to certain risks and uncertainties posed by many factors and events that could cause our actual business, prospects and results of operations to differ materially from those anticipated by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those described under the heading “Risk Factors” included in this prospectus. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus. In some cases, you can identify forward-looking statements by the following words: “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. We undertake no obligation to revise any forward-looking statements in order to reflect events or circumstances that might subsequently arise. Readers are urged to carefully review and consider the various disclosures made by us in this prospectus and in our other reports filed with the SEC that advise interested parties of the risks and factors that may affect our business.

These forward-looking statements reflect our management’s beliefs and views with respect to future events and are subject to risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from those in these forward-looking statements, including, without limitation:

- the success and timing of regulatory submissions and pre-clinical and clinical trials, including enrollment and data readouts;
- regulatory requirements or developments;
- changes to or unanticipated events in connection with clinical trial designs and regulatory pathways;
- delays or difficulties in the enrollment of patients in clinical trials;
- substantial competition, including from generic versions of our product candidates;
- rapid technological change;
- our development of sales and marketing infrastructure;
- future revenue losses and profitability;
- changes in capital resource requirements;
- risks related to our inability to obtain sufficient additional capital to continue to advance our product candidates and preclinical programs;
- domestic and worldwide legislative, regulatory, political and economic developments;
- our dependency on key personnel;
- changes in market opportunities and acceptance;
- reliance on third parties to conduct our clinical trials and supply and manufacture drug supplies;
- future, potential product liability and securities litigation;
- system failures, unplanned events, or cyber incidents;
- risks that our licensing or partnership arrangements may not facilitate the commercialization or market acceptance of our product candidates;
- future fluctuations in the market price of our Common Stock;
- actions by activist stockholders;
- the success and timing of commercialization of any of our product candidates;
- obtaining and maintaining our intellectual property rights;

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- the success of mergers and acquisitions; and
- other risks, uncertainties and factors, including those set forth under “Risk Factors”.

We discuss many of these risks in greater detail under Part I, Item 1A, “Risk Factors”, in our Annual Report on Form 10-K for the year ended December 31, 2025 and subsequent reports filed with or furnished to the SEC. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on any forward-looking statements made by us, which speak only as of the date they were made. We undertake no obligation to publicly update any forward-looking statements after the date of this prospectus supplement, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus, any prospectus supplement, documents we have filed with the SEC that are incorporated by reference herein and therein and any free writing prospectus that we may authorize for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

**USE OF PROCEEDS**

We will not receive any proceeds from the sale of Shares by the selling stockholders. Any proceeds from the sale by the selling stockholders of the Common Stock offered by this prospectus will be received by the selling stockholders. See “Selling Stockholders.”

We will bear the costs, fees and expenses in effecting the registration of the Shares covered by this prospectus, including all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our independent registered public accounting firm.

## THE SELLING STOCKHOLDERS

This prospectus covers the resale or other disposition from time to time by the selling stockholders identified in the table below of up to an aggregate of 7,374,632 shares of our Common Stock. The selling stockholders may from time to time offer and sell any or all of the Shares set forth below pursuant to this prospectus and any accompanying prospectus supplement.

On February 13, 2026, we entered into the Securities Purchase Agreement, pursuant to which we sold 7,374,632 shares of our Series B Preferred Stock, which, subject to stockholder approval of Conversion Proposal and certain beneficial ownership limitations set by each holder pursuant to the Series B Certificate of Designation, will automatically convert into one share of Common Stock for each share of Series B Preferred Stock, for an aggregate of up to 7,374,632 shares of Common Stock and an aggregate purchase price of approximately \$25.0 million.

This prospectus covers the resale or other disposition by the selling stockholders or their pledgees, donees, transferees or other successors-in-interest that receive their shares after the date of this prospectus of up to the total number of shares of Common Stock issuable upon the conversion of the Series B Preferred Stock sold to the selling stockholders pursuant to the Securities Purchase Agreement. Throughout this prospectus, when we refer to the “selling stockholders,” we are referring to the purchasers under the Securities Purchase Agreement listed in the table below.

We are registering the Shares to permit the Selling Stockholders and their pledgees, donees, transferees or other successors-in interest that receive their shares after the date of this prospectus to resell or otherwise dispose of the shares in the manner contemplated under “Plan of Distribution” herein.

Except as otherwise disclosed herein, the selling stockholders do not have, and within the past three years have not had, any position, office or other material relationship with us.

The following table sets forth the number and percentage of shares of our Common Stock beneficially owned by the selling stockholders as of March 31, 2026, taking into account the number of shares that may be offered under this prospectus and the number and percentage of our Common Stock beneficially owned by the selling stockholders assuming all of the shares offered under this prospectus are sold. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares of our common stock. Generally, a person “beneficially owns” shares of our common stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within sixty (60) days.

The selling stockholders may sell some, all or none of their Shares. We do not know how long selling stockholder will hold the Shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale or other disposition of any of the Shares, other than as contemplated by the Registration Rights Agreement. The Shares covered hereby may be offered from time to time by the selling stockholders, provided that Shares issued upon conversion of Series B Preferred Stock may only be offered after such shares of Series B Preferred Stock are converted to Common Stock pursuant to the terms of the Series B Certificate of Designation.

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The information set forth below is based upon information obtained from the selling stockholders and upon information in our possession regarding the issuance of the Series B Preferred Stock and Private Placement Conversion Shares in connection with the Private Placement. The percentages of Common Stock owned after the offering by each selling stockholder below are based on 71,402,472 shares of Common Stock outstanding as of March 31, 2026, and assumes the conversion of the Series B Preferred Stock. The numbers of shares of Common Stock beneficially owned before and after the offering presented in the table below do not give effect to any Beneficial Ownership Limitations with respect to the Series B Preferred Stock.

Name of Selling Stockholders <sup>(1)</sup>	Common Stock Beneficially Owned Before Offering <sup>(2)</sup>	Common Stock that May Be Offered Pursuant to Prospectus	Common Stock Beneficially Owned After Offering <sup>(2)</sup>	
			Number	Percentage (%)
Marshall Wace Investment Strategies – Eureka Fund <sup>(3)</sup>	921,829	921,829	0	*
MW XO Health Innovations Fund II <sup>(4)</sup>	184,366	184,366	0	*
Trails Edge Biotechnology Master Fund, LP <sup>(5)</sup>	2,343,658	1,843,658	500,000	*
Adage Capital Management, L.P. <sup>(6)</sup>	6,029,775	4,424,779	1,604,996	2.0%

\* Less than 1%

- (1) To our knowledge, unless otherwise indicated, all persons named in the table above have sole voting and investment power with respect to their shares of Common Stock.
- (2) “Beneficial ownership” is a term broadly defined by the SEC in Rule 13d-3 under the Exchange Act, and includes more than the typical form of stock ownership, that is, stock held in the person’s name. The term also includes what is referred to as “indirect ownership,” meaning ownership of shares as to which a person has or shares investment power. Notwithstanding the foregoing, the beneficial ownership amounts assume the sale of all Common Stock that may be offered pursuant to this prospectus without taking into account certain limitations, including that a holder of Series B Preferred Stock is prohibited from converting shares of Series B Preferred Stock into shares of Common Stock (i) until the holders of a majority of the then-outstanding shares of Common Stock approve the authorization of a sufficient number of shares of Common Stock to permit the conversion of the Series B Preferred Stock into shares of Common Stock, or (ii) if, as a result of such conversion, such holder, together with its affiliates, would beneficially own more than a specified percentage (established by the holder between 0.00% and 19.99%) (the “Beneficial Ownership Limitation”) of the total number of shares of Common Stock issued and outstanding immediately after giving effect to such conversion.
- (3) The 921,829 shares consist of 921,829 shares of Common Stock to be issuable upon the conversion of 921,829 shares of Series B Preferred Stock. Marshall Wace LLP (“MW LLP”) is the investment manager to Marshall Wace Investment Strategies – Eureka Fund (“Eureka Fund”). The address of the foregoing entities is George House, 131 Sloane Street, London, SW1X 9AT. The Common Stock held by Eureka Fund issuable upon conversion of the shares of Series B Preferred Stock are subject to a Beneficial Ownership Limitation of 4.99%.
- (4) The 184,366 shares consist of 184,366 shares of Common Stock to be issuable upon the conversion of 184,366 shares of Series B Preferred Stock. Marshall Wace North America L.P. is the investment manager to MW XO Health Innovations Fund II (“MW Fund II”). The address of the foregoing entities is 66 Hudson Blvd. E., New York, NY 10001. The Common Stock held by MW Fund II issuable upon conversion of the shares of Series B Preferred Stock are subject to a Beneficial Ownership Limitation of 4.99%.
- (5) The 2,343,658 shares consist of (i) 500,000 shares of Common Stock and (ii) 1,843,658 shares of Common Stock to be issuable upon the conversion of 1,843,658 shares of Series B Preferred Stock. Trails Edge Capital Partners, LP (“Trails Edge”) is the investment manager to Trails Edge Biotechnology Master Fund, LP (“Trails Edge Fund”). Ortav Yehudai is the Chief Investment Officer of Trails Edge and disclaims beneficial ownership of any of the shares of Common Stock held by Trails Edge Fund except to the extent of his pecuniary interest therein. The address of the foregoing entities is 3445 Peachtree Road NE, Suite 900, Atlanta, GA 30326. The Common Stock held by Trails Edge Fund issuable upon conversion of the shares of Series B Preferred Stock are subject to a Beneficial Ownership Limitation of 19.90%.
- (6) The 6,029,775 shares consist of (i) 1,604,996 shares of Common Stock and (ii) 4,424,779 shares of Common Stock to be issuable upon the conversion of 4,424,779 shares of Series B Preferred Stock. Adage Capital Advisors, L.L.C. (“Adage Capital Advisors”) is the managing member of Adage Capital Partners GP, L.L.C., which is the general partner of Adage Capital Management, L.P. (“Adage”). Bob Atchinson and Phillip Gross are the managing members of Adage Capital Advisors and each disclaim beneficial ownership of any of the shares of Common Stock held by Adage except to the extent of his respective pecuniary interest therein. The address of the foregoing entities is 200 Clarendon St., 52nd Floor, Boston, MA 02116. The Common Stock held by Adage issuable upon conversion of the shares of Series B Preferred Stock are subject to a Beneficial Ownership Limitation of 9.99%.

## PLAN OF DISTRIBUTION

We are registering the Shares issued to the selling stockholders to permit the sale, transfer or other disposition of these shares by the selling stockholders or their donees, pledgees, transferees or other successors-in-interest from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the Shares. We will, or will procure to, bear all fees and expenses incident to our obligation to register the Shares.

The selling stockholders may sell all or a portion of the Shares beneficially owned by them and offered hereby from time to time, and in the case of the Private Placement Conversion Shares, may only be offered after such shares are converted to Common Stock pursuant to the terms of the Series B Certificate of Designation, directly or through one or more underwriters, broker-dealers or agents. If the Shares are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts (it being understood that the selling stockholders shall not be deemed to be underwriters solely as a result of their participation in this offering) or commissions or agent's commissions. The Shares may be sold 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 or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions. The selling stockholders may use any one or more of the following methods when selling Shares:

- ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;
- block trades in which a broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- "at the market" or through market makers or into an existing market for the shares;
- short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise, after the effective date of the registration statement of which this prospectus is a part;
- through the distribution of the shares by any selling stockholders to its partners, members or stockholders;
- through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through one or more underwritten offerings on a firm commitment or best efforts basis;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders also may resell all or a portion of the Shares in open market transactions in reliance upon Rule 144, as permitted by that rule, or Section 4(a)(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. If the selling stockholders effect such transactions by selling Shares to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the Shares for whom they may act as agent or to whom they may sell as principal. Such commissions will be in

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amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2121.01.

In connection with sales of the Shares or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Shares in the course of hedging in positions they assume. The selling stockholders may also sell Shares short and if such short sale takes place after the date that this registration statement is declared effective by the SEC, the selling stockholders may deliver Shares covered by this prospectus to close out short positions and to return borrowed Shares in connection with such short sales. The selling stockholders may also loan or pledge Shares to broker-dealers that in turn may sell such shares, to the extent permitted by applicable law. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the selling stockholders have been advised that they may not use Shares the resale of which has been registered on this registration statement to cover short sales of our Common Stock made prior to the date the registration statement, of which this prospectus forms a part, has been declared effective by the SEC.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the Shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the Shares from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the Shares in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer or agents participating in the distribution of the Shares may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act in connection with such sales. In such event, any commissions paid, or any discounts or concessions allowed to, any such broker-dealer or agent and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the applicable prospectus delivery requirements of the Securities Act including Rule 172 thereunder and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act.

Each selling stockholder has informed the Company that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Shares. Upon the Company being notified in writing by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of Common Stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of Shares involved, (iii) the price at which such the Shares were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out in this prospectus, and (vi) other facts material to the transaction.

Under the securities laws of some U.S. states, the Shares may be sold in such states only through registered or licensed brokers or dealers. In addition, in some U.S. states the Shares may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the Shares registered pursuant to the shelf registration statement, of which this prospectus forms a part.

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Each selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the Shares by the selling stockholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the Shares to engage in market-making activities with respect to the Shares. All of the foregoing may affect the marketability of the Shares and the ability of any person or entity to engage in market-making activities with respect to the Shares.

We will pay all expenses of the registration of the Shares pursuant to the Registration Rights Agreement, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, that each selling stockholder will pay all underwriting discounts and selling commissions, if any and any related legal expenses incurred by it. We will indemnify the selling stockholders against certain liabilities, including some liabilities under the Securities Act, in accordance with the Registration Rights Agreement, or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against certain civil liabilities set forth in the Registration Rights Agreement, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus, in accordance with the related registration rights agreements, or we may be entitled to contribution.

## DESCRIPTION OF CAPITAL STOCK

### General

As of the date of this prospectus, we are authorized to issue 260,000,000 shares of capital stock, of which 250,000,000 shares are shares of common stock, par value \$0.0001 per share (“Common Stock”), and 10,000,000 shares are shares of preferred stock, par value \$0.0001 per share (“Preferred Stock”).

The following summary describes the material terms of our capital stock. The description of capital stock is qualified by reference to our certificate of incorporation and our bylaws.

### *Rights of Common Stock*

As of March 31, 2026, 71,402,472 shares of Common Stock were outstanding. All outstanding shares of Common Stock are duly authorized, validly issued, fully paid, and nonassessable. All authorized but unissued shares of our Common Stock are available for issuance by our board of directors without any further stockholder action, except as required by the listing standards of Nasdaq.

*Voting Rights.* Generally, holders of Common Stock are entitled to cast one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors. Accordingly, the holders of a majority of the outstanding 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, other than any directors that holders of any Preferred Stock we may issue may be entitled to elect. Except as may be provided in the Certificate of Incorporation or by our board of directors (the “Board”), holders of Common Stock have the exclusive right to vote for the election of directors and for all other purposes.

*Dividends.* Holders of our Common Stock have equitable rights to receive dividends, as may be lawfully declared from time to time by our Board, subject to any preferential rights of holders of any outstanding shares of Preferred Stock, as described below.

*Liquidation.* In the event of our liquidation, dissolution or winding up, whether voluntary or involuntary, after payment of our debts and other liabilities and making provision for the holders of outstanding shares of Preferred Stock, if any, holders of our Common Stock have the right to share ratably in the remainder of our assets.

*Other Rights and Preferences.* Holders of our Common Stock do not have any preemptive, cumulative voting, subscription, conversion, redemption, or sinking fund rights. The Common Stock is not subject to future calls or assessments by us.

### *Rights of Series A Preferred Stock*

*Generally.* Our Board has the authority, without further action by our stockholders, to issue shares of Preferred Stock in one or more series and to fix the designations, powers, preferences, rights of the shares of each such series and to fix the qualifications, limitations, and restrictions of each series, including, but not limited to, dividend rights, terms of redemption, conversion rights, voting rights, and sinking fund terms, any or all of which may be greater than the rights of Common Stock, and the number of shares constituting such series. The issuance of our Preferred Stock could adversely affect the voting power of holders of our Common Stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of Preferred Stock could have the effect of decreasing the market price of our Common Stock or delaying, deferring or preventing a change of control or other corporate action. The Company previously filed a Certificate of Designation of Preferences, Rights and Limitations of the Series A Non-Voting Convertible Preferred Stock (the “Series A Certificate of Designation”), designating 14,146 shares of authorized Preferred Stock as Series A Non-Voting Convertible Preferred Stock (“Series A Preferred Stock”).

*Voting Rights.* Holders of Series A Preferred Stock generally do not have voting rights, except with respect to certain protective matters such as amendments to our Certificate of Incorporation or the Series A Certificate of Designation that alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock.

*Dividends.* Holders of Series A Preferred Stock are entitled to receive dividends on shares of Series A Preferred Stock (on an as-if-converted-to-common-stock basis) equal to and in the same form, and in the same manner, as dividends (other than dividends on shares of our Common Stock payable in the form of Common Stock) actually paid on shares of our Common Stock when, as and if such dividends (other than dividends

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payable in the form of Common Stock) are paid on shares of our Common Stock. Additionally, commencing on October 15, 2025, holders of Series A Preferred Stock will be entitled to receive, as and if declared by the Board, cumulative quarterly cash dividends equal to \$15.26 per share of Series A Preferred Stock on October 15, 2025 and \$26.00 per share of Series A Preferred Stock for quarterly dividends thereafter. The Company cannot pay any dividends (other than dividends payable in the form of Common Stock) on shares of Common Stock unless the full dividends payable to holders of Series A Preferred Stock are paid at the same time.

*Liquidation.* The Series A Preferred Stock ranks on parity with our Common Stock with respect to the payment of dividends and distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily.

*Conversion.* Upon approval by the Company's stockholders, each share of Series A Preferred Stock will be automatically converted into 1,000 shares of Common Stock, effective as of 5:00 p.m. Eastern Time on the third business day following such approval. No fractional shares of Common Stock will be issued upon conversion of the Series A Preferred Stock; rather, in lieu of any fractional shares to which a holder of Series A Preferred Stock would otherwise be entitled, the Company will pay such holder cash equal to such fraction multiplied by the closing price of a share of Common Stock on the Nasdaq Stock Market on such date. In the event that the Company (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock, (ii) subdivides outstanding shares of Common Stock into a larger number of shares, or (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then the conversion ratio described above will be adjusted by the multiple of a fraction in which the numerator is the number of shares of Common Stock outstanding immediately after such event and the denominator is the number of shares of Common Stock outstanding immediately prior to such event.

*Other Rights and Preferences.* The shares of Series A Preferred Stock are not redeemable. A holder of Series A Preferred Stock may transfer his, her or its shares of Series A Preferred Stock in whole, or in part, together with all accompanying rights, without the consent of the Company so long as such transfer is in compliance with applicable securities laws and with the terms of any lock-up agreement that such shares of Series A Preferred Stock are subject to. In the event that the Company engages in a certain type of business combination, holders of Series A Preferred Stock are entitled to receive the same kind and amount of securities, cash, or property as they would have received if they had converted their shares into Common Stock immediately before the transaction.

### ***Rights of Series B Preferred Stock***

On February 18, 2026, the Company filed a Certificate of Designation of Preferences, Rights and Limitations of Series B Non-Voting Convertible Preferred Stock (the "Series B Certificate of Designation"), designating 7,374,632 shares of authorized Preferred Stock as Series B Non-Voting Convertible Preferred Stock ("Series B Preferred Stock").

*Voting Rights.* Holders of Series B Preferred Stock generally do not have voting rights, except with respect to certain protective matters such as amendments to our Certificate of Incorporation or the Series B Certificate of Designation that alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock. However, as long as any shares of Series B Preferred Stock are outstanding, the Company will not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series B Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock, (b) alter or amend the Series B Certificate of Designation, or (c) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series B Preferred Stock.

*Dividends.* Holders of Series B Preferred Stock are entitled to receive dividends on shares of Series B Preferred Stock (on an as-if-converted-to-common-stock basis) equal to and in the same form as dividends if such dividends were to be paid on shares of our Common Stock.

*Liquidation.* The Series B Preferred Stock shall rank on parity with the Common Stock as to distributions of assets upon liquidation, dissolution or winding up of the Company.

*Conversion.* If the Company's stockholders approve the contemplated increase of authorized shares of Common Stock at the 2026 Annual Meeting of Stockholders, each share of Series B Preferred Stock will automatically convert into one share of Common Stock, subject to certain limitations, including that a holder of Series B Preferred Stock is prohibited from converting shares of Series B Preferred Stock into shares of

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Common Stock if, as a result of such conversion, such holder, together with its affiliates, would beneficially own more than a specified percentage (to be established by the holder between 0% and 19.9%) of the total number of shares of Common Stock issued and outstanding immediately after giving effect to such conversion.

*Other Rights and Preferences.* The shares of Series B Preferred Stock are not redeemable. A holder of Series B Preferred Stock may transfer his, her or its shares of Series B Preferred Stock in whole, or in part, together with all accompanying rights, without the consent of the Company so long as such transfer is in compliance with applicable securities laws. In the event that the Company engages in a certain type of business combination, holders of Series B Preferred Stock are entitled to receive the same kind and amount of securities, cash, or property as they would have received if they had converted their shares into Common Stock immediately before the transaction.

### **Fully Paid and Nonassessable**

All of our outstanding shares of Common Stock and Preferred Stock are fully paid and nonassessable.

### **Anti-Takeover Provisions**

#### ***Bylaws and Certificate of Incorporation***

Various provisions in our Certificate of Incorporation and Bylaws could make it more difficult to complete an acquisition of us by means of a tender offer, a proxy contest or otherwise or change the composition of the Board. For example:

- Directors may be removed with or without cause only by a stockholder vote of at least a majority of the voting power of the then-outstanding voting stock. Vacancies on the Board may be filled by a majority of directors then in office, even if less than a quorum, unless the Board determines otherwise. The authorized number of directors may only be changed by a resolution of the Board.
- A special meeting of stockholders may be called only by a resolution adopted by a majority of our Board, by the Company's Chief Executive Officer, by the Chair of the Board (acting in his or her discretion), or by the Chair of the Board acting within 10 days of receipt of a written request on behalf of at least 20% or more of the stockholders of all of the then-outstanding voting stock.
- There is an advance notice procedure for stockholders to make nominations of candidates for election as directors or to bring other business before an annual meeting of our stockholders. The notice must follow the form and content specified in the Bylaws and include, without limitation, the following information:
  - i. as to director nominations, all information relating to each director nominee that is required by the rules of the Securities and Exchange Commission to be disclosed in solicitations of proxies, or is otherwise required by Regulation 14A of the Securities Exchange Act of 1934, as amended;
  - ii. as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business to be proposed, the reasons for conducting such business at the meeting and, if any, the stockholder's material interest in the proposed business; and
  - iii. the name and address of the stockholder who intends to make the nomination and the class and number of our shares beneficially owned of record.
- The ability to authorize undesignated Preferred Stock makes it possible for our Board to issue Preferred Stock with voting or other rights or preferences that could have the effect of delaying, deferring, preventing or otherwise impeding any attempt to change control of us.

#### ***Restrictions on Business Combinations with Interested Stockholders***

*Delaware Anti-Takeover Statute.* We are subject to Section 203 of the DGCL, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly traded Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested

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stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the Board, such as discouraging takeover attempts that might result in a premium over the market price of our Common Stock.

*Certificate of Incorporation.* Our Certificate of Incorporation also includes restrictions on certain "business combinations" with "interested stockholders"-even after persons have been interested stockholders for a three-year period-that require approval by the holders of at least a majority of the voting power of our then outstanding shares of voting stock not beneficially owned by any interested stockholder or an affiliate or associate thereof. The foregoing restriction does not apply, however, if the transaction is either approved by a majority of our "continuing directors" or certain minimum price and procedural and other requirements are met. Generally, a "business combination" includes a merger, consolidation, liquidation, recapitalization or other similar transaction or a sale, lease, transfer or other disposition of assets or securities having an aggregate fair market value of \$15 million or more. An "interested stockholder" generally means a beneficial owner of 20% or more of our voting stock, certain assignees of such beneficial owners and certain of our affiliates that within the preceding two years were the beneficial owner of 20% or more of our voting stock. A "continuing director" is defined as any member of our Board who is not an affiliate or associate or representative of the interested stockholder and was a member of the Board prior to the time the interested stockholder became such, and any successor of a continuing director who is unaffiliated with the interested stockholder and is recommended or elected by at least two-thirds of the continuing directors then on the Board.

### **Warrants**

As of December 31, 2025, 38,914,807 warrants to purchase shares of our capital stock were outstanding.

#### ***November 2025 Registered Direct Offering***

On November 6, 2025, we entered into a securities purchase agreement to sell securities in a registered direct offering (the "2025 RDO"). In the offering, we sold pre-funded warrants to purchase up to an aggregate of 7,177,033 shares of Common Stock at a purchase price of \$2.0899 per pre-funded warrant (the "2025 RDO Warrants"). Each pre-funded warrant has an exercise price of \$0.0001 per share of common stock, will be immediately exercisable subject to certain conditions set forth in each pre-funded warrant, and will not expire. As of December 31, 2025, all 7,177,033 of the 2025 RDO Warrants remained outstanding.

#### ***March 2025 Warrants***

On March 21, 2025, we entered into an underwriting agreement with Craig-Hallum Capital Group, LLC, as the sole underwriter. Pursuant to the underwriting agreement, we agreed to issue and sell, in an underwritten public offering (the "March 2025 Offering"), 12,219,736 shares of Common Stock and warrants to purchase up to 21,052,631 shares of Common Stock (the "March 2025 Warrants"). Each share of Common Stock was sold together with one March 2025 Warrant to purchase one share of Common Stock, at a price to the public of \$0.95 per share and related March 2025 Warrant. The March 2025 Warrants are exercisable for five years from the date of issuance. We also issued 8,832,895 pre-funded warrants (the "Pre-Funded Warrants") at a price to the public of \$0.9499 per Pre-Funded Warrant. The Pre-Funded Warrants are exercisable at any time until exercised in full. A holder may not exercise a March 2025 Warrant or Pre-Funded Warrant if, after giving effect to such exercise, the holder (together with its affiliates) would beneficially own (as determined in accordance with the terms of the March 2025 Warrants and the Pre-Funded Warrants, respectively) more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding common stock immediately after giving effect to the exercise.

The March 2025 Warrants are callable by us in certain circumstances. As of December 31, 2025, 862,684 of the March 2025 Warrants were exercised for cash in the amount of \$0.8 million and 20,189,947 of the March 2025 Warrants and 8,832,895 of the Pre-Funded Warrants remained outstanding.

#### ***March 2025 Private Placement Warrants***

On March 21, 2025, we entered into a subscription agreement with Dr. George Magrath, our Chief Executive Officer, and Cam Gallagher, the chairman of our board of directors, for the issuance and sale by us of 1,176,471 shares of Common Stock, and warrants to purchase 1,176,471 shares of Common Stock at an offering

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price of \$1.275 per share and related warrant (the “March 2025 Private Placement Warrants”). Each March 2025 Private Placement Warrant has an initial exercise price of \$1.15, expires on the five-year anniversary of the original issuance date and may be called by us in certain circumstances. As of December 31, 2025, all 1,176,471 March 2025 Private Placement Warrants were outstanding.

### ***RDO Warrants***

On June 4, 2021, we entered into a placement agency agreement with Alliance Global Partners (“AGP”), pursuant to which AGP sold warrants to purchase 1,538,461 shares of Common Stock (the “2021 RDO Warrants”). The 2021 RDO Warrants were issued on June 8, 2021 at an initial exercise price of \$6.09 per share, were immediately exercisable upon issuance and have a term of five years from the date of issuance. At the end of the term, the 2021 RDO Warrants will expire. Subject to limited exceptions, a holder of a 2021 RDO Warrant will not have the right to exercise any portion of its 2021 RDO Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of a holder prior to the date of issuance, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to such exercise; provided, however, that upon prior notice to us, the holder may increase or decrease the beneficial ownership limitation so long as the beneficial ownership limitation does not exceed 9.99%. As of December 31, 2025, all 1,538,461 2021 RDO Warrants were outstanding.

### **Listing**

Our Common Stock is listed on the Nasdaq Stock Market under the symbol “IRD”.

### **Transfer Agent and Registrar**

The transfer agent and registrar for our Common Stock is Equiniti Trust Company, LLC.

**LEGAL MATTERS**

The validity of the securities being offered hereby will be passed upon for us by Sidley Austin LLP, New York, New York.

**EXPERTS**

The consolidated financial statements of Opus Genetics, Inc. appearing in Opus Genetics, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2025, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

**WHERE YOU CAN FIND MORE INFORMATION**

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, with respect to the securities offered by this prospectus and any applicable prospectus supplement. This prospectus and any applicable prospectus supplement do not contain all of the information set forth in the registration statement and its exhibits and schedules in accordance with SEC rules and regulations. For further information with respect to us and the securities being offered by this prospectus and any applicable prospectus supplement, you should read the registration statement, including its exhibits and schedules. Statements contained in this prospectus and any applicable prospectus supplement, including documents that we have incorporated by reference, as to the contents of any contract or other document referred to are not necessarily complete, and, with respect to any contract or other document filed as an exhibit to the registration statement or any other such document, each such statement is qualified in all respects by reference to the corresponding exhibit. You should review the complete contract or other document to evaluate these statements. You may obtain copies of the registration statement and its exhibits via the SEC's website at <http://www.sec.gov>.

We file annual, quarterly and current reports, proxy statements and other documents with the SEC under the Exchange Act. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. You may obtain documents that we file with the SEC at <http://www.sec.gov>. We also make these documents available on our website at [www.nextcure.com](http://www.nextcure.com). Our website and the information contained or accessible through our website is not incorporated by reference in this prospectus or any prospectus supplement, and you should not consider it part of this prospectus or any prospectus supplement.

## INFORMATION INCORPORATED BY REFERENCE

SEC rules permit us to incorporate information by reference in this prospectus and any applicable prospectus supplement. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus and any applicable prospectus supplement, except for information superseded by information contained in this prospectus or any applicable prospectus supplement itself or in any subsequently filed incorporated document. This prospectus and any applicable prospectus supplement incorporate by reference the documents set forth below that we have previously filed with the SEC (Commission File No. 001-34079), other than information in such documents that is deemed to be furnished and not filed. These documents contain important information about us and our business and financial condition.

- Annual Report on Form 10-K for the year ended December 31, 2025, filed with the SEC on [March 12, 2026](#);
- The information contained in our Definitive Proxy Statement on Schedule 14A, filed with the SEC on [March 23, 2026](#), that is incorporated by reference in the 2025 Annual Report;
- Current Reports on Form 8-K, filed with the SEC on [February 19, 2026](#), [April 7, 2026](#) (excluding Item 7.01 and the related exhibits) and [April 7, 2026](#); and
- The description of our common stock contained in our Registration Statement on [Form 8-A](#), filed with the SEC on June 7, 2019, including any amendments or reports filed for the purpose of updating such description, including [Exhibit 4.13](#) to the Annual Report on Form 10-K for the year ended December 31, 2025.

All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, and any previously filed documents. All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and prior to the termination of the offering of any of the securities covered under this prospectus shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, the applicable prospectus supplement and any previously filed documents.

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

You can obtain any of the filings incorporated by reference into this prospectus or any applicable prospectus supplement through us or from the SEC through the SEC's website at <http://www.sec.gov>. Upon written or oral request, we will provide, without charge, a copy of any or all of the reports and documents referred to above which have been incorporated by reference into this prospectus or any applicable prospectus supplement. Prospective and current investors may obtain documents incorporated by reference in this prospectus or any applicable prospectus supplement by requesting them in writing or by telephone from us at our executive offices at:

Opus Genetics, Inc.  
8 Davis Drive, Suite 220  
Durham, NC 27713  
(248) 957-9024

Attn: Dr. George Magrath, Chief Executive Officer

Our reports and documents incorporated by reference herein may also be found in the "Investor Relations" section of our website at [www.opusgtx.com](http://www.opusgtx.com). The content of our website and any information that is linked to or

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accessible from our website (other than our filings with the SEC that are incorporated by reference, as set forth above) is not incorporated by reference into this prospectus or any applicable prospectus supplement and you should not consider it a part of this prospectus, any applicable prospectus supplement, or the registration statement.



**7,374,632 Shares of Common Stock**

**Offered by the Selling Stockholders**

April , 2026

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**PROSPECTUS**

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We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in this prospectus. You must not rely on any unauthorized information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not offer to sell any securities in any jurisdiction where it is unlawful. Neither the delivery of this prospectus, nor any sale made hereunder, shall create any implication that the information in this prospectus is correct after the date hereof.

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**PART II**

**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution.**

The expenses payable by us in connection with the issuance and distribution of the securities being registered hereunder on Form S-3 (other than underwriting discounts and commissions, if any) are set forth below. The selling stockholders will not bear any portion of such expenses. Each item listed is estimated, except for the SEC registration fee:

SEC registration fee	\$ 4,980.16
Printing and engraving	10,000
Legal fees and expenses	40,000
Accounting fees and expenses	15,000
Total	\$69,980.16

Discounts, concessions, commissions and similar selling expenses attributable to the sale of shares of Common Stock covered by this prospectus will be borne by the selling securityholders. We will pay all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the shares with the SEC, as estimated in the table above.

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

Delaware General Corporation Law

No director of the Company shall be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL, as it presently exists or may hereafter be amended from time to time. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

The Company shall indemnify its directors and officers to the fullest extent authorized or permitted by the DGCL, as now or hereafter in effect, and such right to indemnification shall continue as to a person who has ceased to be a director or officer of the Company and shall inure to the benefit of such person's heirs, executors and personal and legal representatives. A director's or officer's right to indemnification shall include the right to be paid by the Company the expenses incurred in defending or otherwise participating in any proceeding in advance of its final disposition, provided that such director or officer presents to the Company a written undertaking to repay such amount if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Company. Notwithstanding the foregoing, except for proceedings to enforce any director's or officer's rights to indemnification or rights to advancement of expenses, the Company shall not be obligated to indemnify any director or officer, or advance expenses of any director or officer, (or such director's or officer's heirs, executors or personal or legal representatives) in connection with any proceeding (or part thereof) initiated by such person unless such proceeding (or part thereof) was authorized by the Board.

Certificate of Incorporation and Bylaws

We have adopted provisions in our bylaws that provide for indemnification of our officers and directors to the maximum extent permitted under the DGCL. As authorized by the DGCL, our certificate of incorporation limits the liability of our directors for monetary damages. The effect of this provision is to eliminate our rights and that of our stockholders to recover monetary damages against a director for breach of the fiduciary duty of care as a director except in certain limited situations. This provision does not limit or eliminate our rights or that of any stockholder to seek non-monetary relief such as an injunction or rescission in the event of a breach of a director's duty of care. These provisions will not alter the liability of directors under federal securities laws.

Indemnification Agreements

We have entered into indemnification agreements with each of our current directors and officers. These agreements will require us to indemnify these individuals to the fullest extent permitted under Delaware law

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against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

Insurance Policy

We have purchased an insurance policy that purports to insure our officers and directors against certain liabilities incurred by them in the discharge of their functions as such officers and directors.

The foregoing summaries are not intended to be exhaustive and are qualified in their entirety by reference to the complete text of the statute, the certificate of incorporation, and the agreements referred to above and are qualified in their entirety by reference thereto.

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See the undertakings set forth in response to Item 17 herein.

### **Item 16. Exhibits.**

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">3.1*</a>	Restated Certificate of Incorporation of Ocuphire Pharma, Inc., dated as of June 12, 2024 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q, filed on August 13, 2024.
<a href="#">3.2*</a>	Certificate of Amendment to the Restated Certificate of Incorporation of the Company, effective as of October 23, 2024 (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K, filed on October 22, 2024).
<a href="#">3.3*</a>	Certificate of Designation of Series A Non-Voting Convertible Preferred Stock, effective as of October 22, 2024 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K, filed on October 22, 2024).
<a href="#">3.4*</a>	Form of Certificate of Designation of Series B Non-Voting Convertible Preferred Stock, effective as of February 18, 2026 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K, filed on February 19, 2026).
<a href="#">3.5**</a>	Amended and Restated Bylaws, dated as of March 19, 2025 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on March 20, 2025).
<a href="#">5.1**</a>	Opinion of Sidley Austin LLP.
<a href="#">23.1**</a>	Consent of Ernst & Young LLP, independent registered public accounting firm.
<a href="#">23.2**</a>	Consent of Sidley Austin LLP.
<a href="#">24.1*</a>	Power of Attorney
<a href="#">107*</a>	Filing Fee Table

\* Previously filed.

\*\* Filed herewith.

### **Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes:

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

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

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- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser:
  - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
  - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
  - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the

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

**SIGNATURES**

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Durham, North Carolina, on the 20th day of April, 2026.

**OPUS GENETICS, INC.**

By: /s/ Dr. George Magrath

Dr. George Magrath  
Chief Executive Officer

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Dr. George Magrath</u> Dr. George Magrath	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	April 20, 2026
<u>/s/ Robert Gagnon</u> Robert Gagnon	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	April 20, 2026
<u>*</u> Sean Ainsworth	Director	April 20, 2026
<u>*</u> Dr. Jean Bennett	Director	April 20, 2026
<u>*</u> Susan K. Benton	Director	April 20, 2026
<u>*</u> Cam Gallagher	Director	April 20, 2026
<u>*</u> Dr. Adrienne Graves	Director	April 20, 2026
<u>*</u> Dr. James S. Manuso	Director	April 20, 2026
<u>*</u> Richard J. Rodgers	Director	April 20, 2026
<u>*</u> Dr. Benjamin R. Yerxa	President and Director	April 20, 2026

\* By: /s/ Robert Gagnon  
Robert Gagnon  
Attorney-in-Fact

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**SIDLEY**SIDLEY AUSTIN LLP  
2850 QUARRY LAKE DRIVE, SUITE 280  
BALTIMORE, MD 21209  
+1 410 559 2880  
+1 202 736 8711 Fax

April 20, 2026

Opus Genetics, Inc.  
8 Davis Drive, Suite 220  
Durham, NC 27713Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We refer to the Registration Statement on Form S-3, File No. 333-294295 (as amended, the "Registration Statement") filed by Opus Genetics, Inc., a Delaware corporation formerly known as Ocuphire Pharma, Inc. (the "Company"), with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act of 7,374,632 shares (the "Common Shares") of its common stock, \$0.0001 par value per share (the "Common Stock"), which are issuable upon the conversion of 7,374,632 shares of Series B Non-Voting Convertible Preferred Stock, \$0.0001 par value per share (the "Preferred Shares"). The Preferred Shares were issued pursuant to a securities purchase agreement dated February 13, 2026 (the "Purchase Agreement") between the Company and the purchasers named therein (the "Purchasers").

This opinion letter is being delivered in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

We have examined the Registration Statement, the Purchase Agreement, the Company's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Certificate of Designation of Preferences, Rights and Limitations of the Preferred Shares (the "Certificate of Designation"), and the resolutions adopted by the board of directors of the Company relating to the Registration Statement and the issuance of the Preferred Shares by the Company and the issuance of the Common Shares upon conversion thereof. We have also examined originals, or copies of originals certified to our satisfaction, of such agreements, documents, certificates and statements of the Company and other corporate documents and instruments, and have examined such questions of law, as we have considered relevant and necessary as a basis for this opinion letter. We have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures, the legal capacity of all persons and the conformity with the original documents of any copies thereof submitted to us for examination. As to facts relevant to the opinions expressed herein, we have relied without independent investigation or verification upon, and assumed the accuracy and completeness of, certificates, letters and oral and written statements and representations of public officials and officers and other representatives of the Company.

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Based on and subject to the foregoing and the other limitations, qualifications and assumptions set forth herein, including that the Registration Statement, as finally amended (including any necessary post-effective amendments), shall have become effective under the Securities Act, we are of the opinion that the Common Shares issuable upon conversion of the Preferred Shares have been duly authorized and reserved for issuance, and, when the Preferred Shares have been duly converted into the Common Shares in accordance with the terms of the Preferred Shares and when the Company's books reflect the issuance of such Common Shares to the holders of the Preferred Shares, the Common Shares will be validly issued, fully paid and non-assessable.

For the purposes of this opinion letter, we have assumed that, at the time of the issuance and delivery of the Common Shares: (i) the authorization thereof by the Company will not have been modified or rescinded, and there will not have occurred any change in law affecting the validity thereof; (ii) the Certificate of Incorporation, the Certificate of Designation and the Company's Amended and Restated Bylaws, as currently in effect, will not have been modified or amended and will be in full force and effect; and (iii) the Company will have sufficient authorized and unissued shares of Common Stock from which to issue the Common Shares.

This opinion letter is limited to the General Corporation Law of the State of Delaware. We express no opinion as to the laws, rules or regulations of any other jurisdiction, including, without limitation, the federal laws of the United States of America or any state securities or blue sky laws.

We hereby consent to the filing of this opinion letter as an Exhibit to the Registration Statement and to all references to our firm included in or made a part of the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Sidley Austin LLP

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**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption “Experts” in Amendment No. 1 to the Registration Statement (Form S-3) and related Prospectus of Opus Genetics, Inc. for the registration of 7,374,632 shares of its common stock and to the incorporation by reference therein of our report dated March 12, 2026, with respect to the consolidated financial statements of Opus Genetics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2025, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts

April 20, 2026

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