



**Idera Pharmaceuticals, Inc.**

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**Up to \$30,173,865  
Common Stock**

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This prospectus supplement relates to the issuance and sale of up to \$30,173,865 of shares of our common stock, \$0.001 par value per share (“Common Stock”), that we may issue to Lincoln Park Capital Fund, LLC (“Lincoln Park”) from time to time under a purchase agreement that we entered into with Lincoln Park on March 4, 2019 (the “Purchase Agreement”), as amended on September 2, 2020 (the “Amended Purchase Agreement”). The primary purpose of the Amended Purchase Agreement was to reference our Registration Statement on Form S-3 (File No. 333-240366) rather than the registration statement that had been referenced at the time of the original Purchase Agreement, and facilitate a corresponding increase in the number of shares of Common Stock issuable under the Exchange Cap (as defined and discussed below). The shares offered include up to \$30,173,865 of shares of Common Stock we may sell to Lincoln Park from time to time, at our sole discretion, in accordance with the Amended Purchase Agreement. See “Agreement with Lincoln Park Capital Fund, LLC” for a description of the Amended Purchase Agreement. Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the “Securities Act”).

This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Lincoln Park to the public.

Our Common Stock is listed on the Nasdaq Capital Market under the symbol “IDRA.” The last reported sale price of our Common Stock on August 31, 2020 was \$2.08 per share.

**Investing in the Common Stock involves risks. See “Risk Factors” beginning on page S-8 of this prospectus supplement.**

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

The date of this prospectus supplement is September 3, 2020

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## Prospectus

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated August 4, 2020, including the documents incorporated by reference therein, provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between (i) the information contained in this prospectus supplement and (ii) the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus supplement is part of a registration statement that we filed with the SEC, using a “shelf” registration process. Under the shelf registration process, we may from time to time offer and sell any combination of the securities described in the accompanying prospectus up to a total dollar amount of \$150,000,000, of which this offering is a part.

**We are not making offers to sell or solicitations to buy our Common Stock in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information in this prospectus supplement, the accompanying prospectus or any related free writing prospectus is accurate only as of the date on the front of the document and that any information that we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or any related free writing prospectus, or any sale of a security.**

Unless the context otherwise requires, references in this prospectus to “Idera Pharmaceuticals,” “we,” “us,” and “our” refer to Idera Pharmaceuticals, Inc. Idera® and IMO® are our trademarks. All other trademarks and service marks appearing in this registration statement are the property of their respective owners.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering, and selected information contained elsewhere in or incorporated by reference into this prospectus supplement. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our Common Stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" beginning on page S-8 and in the documents incorporated by reference into this prospectus supplement.*

### Description of Business

We are a clinical-stage biopharmaceutical company with a business strategy focused on the clinical development, and ultimately the commercialization, of drug candidates for both oncology and rare disease indications characterized by small, well-defined patient populations with serious unmet medical needs. Our current focus is on our Toll-like receptor (TLR) agonist, tilsetolimod, for oncology. We believe we can develop and commercialize targeted therapies on our own. To the extent we seek to develop drug candidates for broader disease indications, we have entered into and may explore additional collaborative alliances to support development and commercialization.

TLRs are key receptors of the immune system and play a role in innate and adaptive immunity. As a result, we believe TLRs are potential therapeutic targets for the treatment of a broad range of diseases. Using our chemistry-based platform, we have designed both TLR agonists and antagonists to act by modulating the activity of targeted TLRs. A TLR agonist is a compound that stimulates an immune response through the targeted TLR. A TLR antagonist is a compound that inhibits an immune response by blocking the targeted TLR.

Our current TLR-targeted clinical-stage drug candidate, tilsetolimod, is an agonist of TLR9. We currently are developing tilsetolimod, via intratumoral injection, for the treatment of anti-PD1 refractory metastatic melanoma in combination with ipilimumab, an anti-CTLA4 antibody marketed as Yervoy® by Bristol-Myers Squibb Company, or BMS, in a Phase 3 registration trial. We are also evaluating intratumoral tilsetolimod in combination with nivolumab, an anti-PD1 antibody marketed as Opdivo® by BMS, and ipilimumab for the treatment of multiple solid tumors in a Phase 2 trial.

### Corporate and Other Information

Our executive offices are located at 505 Eagleview Boulevard, Suite 212, Exton, Pennsylvania 19341, our telephone number is (484) 348-1600 and our Internet address is [www.iderapharma.com](http://www.iderapharma.com). The information on our website is not incorporated by reference in this prospectus and should not be considered to be part of this prospectus. Our website address is included in this prospectus as an inactive technical reference only. Unless the context otherwise requires, references in this prospectus to "Idera Pharmaceuticals," "we," "us," and "our" refer to Idera Pharmaceuticals, Inc. Idera® and IMO® are our trademarks. All other trademarks and service marks appearing in this registration statement are the property of their respective owners.

## THE OFFERING

|   |   |
|---|---|
| Issuer  | Idera Pharmaceuticals, Inc.   |
| Securities being Offered <sup>(1)</sup>   | Up to \$30,173,865 of shares of Common Stock we may sell to Lincoln Park from time to time, at our sole discretion, in accordance with the Amended Purchase Agreement; and  |
| Shares of Common Stock to be outstanding immediately after this offering <sup>(2)</sup> | Up to 49,705,911 shares of Common Stock, assuming an average sales price of \$2.08 per share (the last reported sales price of our Common Stock on the Nasdaq Capital Market on August 31, 2020) for the \$30,173,865 of shares of Common Stock we may sell to Lincoln Park from time to time. The actual number of shares issued and outstanding will vary depending on the sale prices of shares sold to Lincoln Park in this offering. |
| Use of Proceeds   | We intend to use the net proceeds received from the sale of our Common Stock for funding ongoing clinical development of tilsotolimod (IMO-2125) for oncology and general corporate and working capital purposes. See “Use of Proceeds” on page S-12.   |
| Risk Factors  | See “Risk Factors” beginning on page S-8 of this prospectus and the other information included in, or incorporated by reference into, this prospectus for a discussion of certain factors you should carefully consider before deciding to invest in shares of our Common Stock.  |
| Nasdaq Capital Market symbol  | “IDRA”  |

- (1) The Amended Purchase Agreement prohibits us from issuing or selling to Lincoln Park under the Amended Purchase Agreement (i) in excess of 7,036,329 shares of our Common Stock (the “Exchange Cap”), unless we obtain stockholder approval to issue shares in excess of the Exchange Cap or the average price of all applicable sales of our Common Stock to Lincoln Park under the Amended Purchase Agreement equal or exceed the lower of (A) the closing price of the Common Stock on the Nasdaq Capital Market immediately preceding the date of the Amended Purchase Agreement or (B) the average of the closing price of the Common Stock on the Nasdaq Capital Market for the five Business Days (as defined in the Purchase Agreement) immediately preceding the date of the Amended Purchase Agreement, and (ii) any shares of our Common Stock if those shares, when aggregated with all other shares of our Common Stock then beneficially owned by Lincoln Park and its affiliates would result in Lincoln Park and its affiliates having beneficial ownership of more than 9.99% of the then total outstanding shares of our Common Stock (the “Beneficial Ownership Cap”).
- (2) The number of shares of Common Stock to be outstanding after this offering, as set forth above, is based on 35,199,246 shares of Common Stock outstanding as of August 31, 2020, which amount excludes:
- 4,035,439 shares of our Common Stock issuable upon the exercise of stock options outstanding under our 2013 Stock Incentive Plan as of June 30, 2020, at a weighted-average exercise price of \$9.86 per share, 1,826,873 options of which were exercisable as of such date;
  - 721,012 shares of our Common Stock issuable upon the exercise of stock options granted to certain senior executives and employees outside our 2013 Stock Incentive Plan as of June 30, 2020, at a weighted-average exercise price of \$18.75 per share, 714,566 options of which were exercisable as of such date;

- 376,210 shares of our Common Stock issuable upon vesting of restricted stock units outstanding under our 2013 Stock Incentive Plan as of June 30, 2020, at a weighted-average exercise price of \$2.30 per share;
- 1,464,378 shares of our Common Stock reserved for issuance of new awards under our 2013 Stock Incentive Plan as of June 30, 2020;
- 281,317 shares of our Common Stock reserved for issuance of new shares under our 2017 Employee Stock Purchase Plan as of June 30, 2020;
- 241 shares of our Common Stock reserved as of June 30, 2020 for issuance upon any conversion of our outstanding Series A convertible preferred stock;
- 2,368,400 shares of our Common Stock reserved as of June 30, 2020 for issuance upon any conversion of our outstanding Series B convertible preferred stock; and
- 8,138,430 shares of our Common Stock issuable upon the exercise of outstanding warrants as of June 30, 2020, at a weighted-average exercise price of \$1.32 per share, all of which were exercisable as of that date.

#### **Agreement with Lincoln Park Capital Fund, LLC**

On March 4, 2019, we entered into a Purchase Agreement with Lincoln Park, pursuant to which, upon the terms and subject to the conditions and limitations set forth therein, we had the right to sell to Lincoln Park up to \$35,000,000 of shares of our Common Stock at our discretion. Prior to the date of this prospectus supplement, we have sold 2,135,848 shares of our Common Stock to Lincoln Park pursuant to the Purchase Agreement, resulting in net proceeds of approximately \$4.8 million. On September 2, 2020, we entered into the Amended Purchase Agreement, pursuant to which Lincoln Park became irrevocably committed to purchase from us up to \$30,173,865 of shares of our Common Stock.

We are filing this prospectus supplement to cover the offer and sale of up to \$30,173,865 of shares of our Common Stock, subject to the conditions and limitations in the Amended Purchase Agreement.

For a period until April 1, 2022, up to an aggregate amount of \$30,173,865 (subject to certain limitations) of shares of Common Stock, we have the right, but not the obligation, from time to time, in our sole discretion and subject to certain conditions, to direct Lincoln Park to purchase up to 150,000 shares (the “Regular Purchase Share Limit”) of our Common Stock (each such purchase, a “Regular Purchase”). The Regular Purchase Share Limit will increase to 200,000 shares, if the closing price of our Common Stock on the purchase date is not below \$5.00. In any case, Lincoln Park’s maximum obligation under any single Regular Purchase will not exceed \$2,000,000, unless we mutually agree to increase the maximum amount of such Regular Purchase. The purchase price for shares of Common Stock to be purchased by Lincoln Park under a Regular Purchase will be the equal to the lower of (in each case, subject to the adjustments described in the Amended Purchase Agreement):

- the lowest sale price for our Common Stock on the applicable purchase date; and
- the arithmetic average of the three lowest sale prices for our Common Stock during the ten trading days prior to the purchase date.

If we direct Lincoln Park to purchase the maximum number of shares of Common Stock that we then may sell in a Regular Purchase, then in addition to such Regular Purchase, and subject to certain conditions and limitations in the Amended Purchase Agreement, we may direct Lincoln Park to make an “accelerated purchase” of an additional amount of Common Stock that may not exceed the lesser of (i) 300% of the number of shares purchased pursuant to the corresponding Regular Purchase and (ii) 30% of the total number of shares of our Common Stock traded during a specified period on the applicable purchase date as set forth in the Amended Purchase Agreement. The purchase price for such shares will be the lesser of:

- the closing sale price for the Common Stock on the date of sale; and
- 97% of the volume weighted average price of the Common Stock over a certain portion of the date of sale as set forth in the Amended Purchase Agreement.

Under certain circumstances and in accordance with the Amended Purchase Agreement, the Company may direct Lincoln Park to purchase shares in multiple accelerated purchases on the same trading day.

We will control the timing and amount of any sales of our Common Stock to Lincoln Park. There is no upper limit on the price per share that Lincoln Park must pay for our Common Stock under the Amended Purchase Agreement.

The Amended Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of Common Stock if those shares, when aggregated with all other shares of our Common Stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then total outstanding shares of our Common Stock.

The Amended Purchase Agreement does not limit our ability to raise capital from other sources at our sole discretion, except that (subject to certain exceptions) we may not enter into any Variable Rate Transaction, other than an Exempt Transaction (each as defined in the Amended Purchase Agreement) until April 1, 2021.

Events of default under the Amended Purchase Agreement generally include the following:

- the suspension of our Common Stock from trading or the failure of our Common Stock to be listed on the Nasdaq Capital Market for a period of one business day;
- the delisting of our Common Stock from Nasdaq Capital Market; provided, however, that our Common Stock is not immediately thereafter trading on the New York Stock Exchange, the Nasdaq Global Market, the Nasdaq Global Select Market, the NYSE Arca, the OTC Bulletin Board or OTC Markets (or nationally recognized successor to any of the foregoing);
- the failure for any reason by the transfer agent to issue the securities offered hereby to Lincoln Park within three business days after the applicable purchase date which Lincoln Park is entitled to receive such securities;
- any breach of the representations and warranties or covenants contained in the Amended Purchase Agreement or any related agreements with Lincoln Park if such breach would reasonably be expected to have a material adverse effect and such breach is not cured within five trading days;

- our participation in insolvency or bankruptcy proceedings by or against us, as more fully described in the Amended Purchase Agreement; or
- if at any time we are not eligible to transfer our Common Stock electronically via Deposit/Withdrawal at Custodian (“DWAC”), or any similar program hereafter adopted by The Depository Trust Company performing substantially the same function.

Lincoln Park does not have the right to terminate the Amended Purchase Agreement upon any of the events of default set forth above. During an event of default, all of which are outside the control of Lincoln Park, shares of our Common Stock cannot be sold by us or purchased by Lincoln Park under the terms of the Amended Purchase Agreement.

We may at any time, in our sole discretion, terminate the Amended Purchase Agreement without fee, penalty or cost, upon one trading day written notice. In the event of bankruptcy proceedings by or against us, the Amended Purchase Agreement will automatically terminate without action of any party.

The above description of the Amended Purchase Agreement is qualified in its entirety by reference to the Purchase Agreement, filed as Exhibit 10.37 to our [Annual Report on Form 10-K for the fiscal year ended December 31, 2018](#), which was filed with the SEC on March 6, 2019, and to the amendment to the Purchase Agreement, which will be filed with the SEC, and which Amended Purchase Agreement is incorporated by reference into this prospectus supplement.

#### Amount of Potential Proceeds to be Received under the Amended Purchase Agreement

Under the Amended Purchase Agreement, we may sell shares of Common Stock having an aggregate offering price of up to \$30,173,865 to Lincoln Park from time to time. The number of shares ultimately offered for sale to Lincoln Park in this offering is dependent upon the number of shares we elect to sell to Lincoln Park under the Amended Purchase Agreement. The following table sets forth the amount of proceeds we would receive from Lincoln Park from the sale of shares at varying purchase prices:

| Assumed Average Purchase Price | Additional Shares Purchasing, without Commitment Shares in Ownership                       |   |    | Proceeds from the Sale of Shares Under the Amended Purchase Agreement Registered in this Offering |
|--------------------------------|--|---|----|---|
|                                | Number of Shares to be Issued in this Offering at the Assumed Average Purchase Price(1)(2) | Percentage of Outstanding Shares After Giving Effect to the Additional Purchased Shares Issued to Lincoln Park(3) |    |   |
| \$ 1.50                        | 7,036,329  | 16.66%  | \$ | 10,554,493.91   |
| \$ 2.05(4)                     | 7,036,329  | 16.66%  | \$ | 14,424,474.45   |
| \$ 4.00                        | 7,543,466  | 17.65%  | \$ | 30,173,864.00   |
| \$ 5.50                        | 5,486,157  | 13.48%  | \$ | 30,176,863.50   |
| \$ 7.00                        | 4,310,552  | 10.91%  | \$ | 30,173,864.00   |

- (1) Includes the total number of shares of Common Stock that we would have sold under the Amended Purchase Agreement at the corresponding assumed purchase price set forth in the adjacent column, up to the aggregate purchase price of \$30,173,865.
- (2) The Amended Purchase Agreement prohibits us from issuing or selling to Lincoln Park under the Amended Purchase Agreement (i) shares of our Common Stock in excess of the Exchange Cap, unless we obtain stockholder approval to issue shares in excess of the Exchange Cap or the average price of all applicable sales of our Common Stock to Lincoln Park under the Amended Purchase Agreement equal or exceed the greater of book or market value of the Common Stock as calculated in accordance with the applicable rules of the Nasdaq Capital Market, and (ii) any shares of our Common Stock if those shares, when aggregated with all other shares of our Common Stock then beneficially owned by Lincoln Park and its affiliates, would exceed the Beneficial Ownership Cap.



- (3) The denominator is based on 35,199,246 shares outstanding as of August 31, 2020 and the number of shares set forth in the adjacent column that we would have sold to Lincoln Park. The numerator is based on the additional number of shares which we may issue to Lincoln Park under the Amended Purchase Agreement, which are the subject of this offering at the corresponding assumed purchase price set forth in the adjacent column.
- (4) The closing sale price of the Common Stock on September 2, 2020 was \$2.05 per share (the “Minimum Price”). For purposes of the above table, the assumed average purchase price reflects a discount price of immediately below the Minimum Price demonstrating the maximum shares issuable under the Exchange Cap.

## RISK FACTORS

*An investment in our Common Stock involves a high degree of risk. Before deciding whether to invest in our Common Stock, you should carefully consider the risks described below and discussed under the sections captioned "Risk Factors" contained in our most recent Annual Report on Form 10-K, as well as in any of our subsequent Quarterly Reports on Form 10-Q, which are incorporated by reference herein in their entirety, together with other information in this prospectus, the information and documents incorporated by reference in this prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our Common Stock to decline, resulting in a loss of all or part of your investment.*

**We have broad discretion in the use of the net proceeds of this offering and, despite our efforts, we may use the proceeds in a manner that does not improve our operating results or increase the value of your investment.**

We currently anticipate that the net proceeds from the sale of our Common Stock will be used primarily for funding ongoing clinical development of tilsotolimod (IMO-2125) for oncology and for general corporate and working capital purposes. However, we have not determined the specific allocation of the net proceeds among these potential uses. Our management will have broad discretion over the use and investment of the net proceeds of this offering, and, accordingly, investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds, with only limited information concerning our specific intentions. These proceeds could be applied in ways that do not improve our operating results or increase the value of your investment. Please see the section entitled "Use of Proceeds" on page S-12 for further information.

**If we sell shares of our Common Stock under the Amended Purchase Agreement, our existing stockholders will experience immediate dilution and, as a result, our stock price may go down.**

Pursuant to the Amended Purchase Agreement, we have agreed to sell \$30,173,865 of shares of Common Stock to Lincoln Park over a 36-month period from the Commencement Date at our option and subject to certain limitations. For additional details on this financing arrangement, please refer to "Plan of Distribution" located elsewhere in this prospectus supplement. The sale of shares of our Common Stock pursuant to the Amended Purchase Agreement will have a dilutive impact on our existing stockholders. Lincoln Park may resell some or all of the shares we issue to it under the Amended Purchase Agreement and such sales could cause the market price of our Common Stock to decline, which decline could be significant.

**Sales of a significant number of shares of our Common Stock in the public markets, or the perception that such sales could occur, could depress the market price of our Common Stock.**

Sales of a substantial number of shares of our Common Stock in the public markets could depress the market price of our Common Stock and impair our ability to raise capital through the sale of additional equity securities. We cannot predict the effect that future sales of our Common Stock would have on the market price of our Common Stock.

**We do not intend to pay any cash dividends on our Common Stock in the foreseeable future and, therefore, any return on your investment in our Common Stock must come from increases in the fair market value and trading price of our Common Stock.**

We do not intend to pay any cash dividends on our Common Stock in the foreseeable future and, therefore, any return on your investment in our Common Stock must come from increases in the fair market value and trading price of our Common Stock.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, in the accompanying prospectus and the documents we incorporate by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements, other than statements of historical fact, included or incorporated in this prospectus supplement regarding our strategy, future operations, clinical trials, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans, and objectives of management are forward-looking statements. The words “believes,” “anticipates,” “estimates,” “plans,” “expects,” “intends,” “may,” “could,” “should,” “potential,” “likely,” “projects,” “continue,” “will,” “schedule,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties, and other factors, which may be beyond our control, and which may cause our actual results, performance, or achievements to be materially different from future results, performance, or achievements expressed or implied by such forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. Accordingly, you are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are referenced in the section of any accompanying prospectus supplement entitled “Risk Factors.” These factors and the other cautionary statements made in this prospectus supplement, in the accompanying prospectus and the documents we incorporate by reference should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus supplement, in the accompanying prospectus and the documents we incorporate by reference. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus supplement is filed with the SEC and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as may be required by law.

## DILUTION

The purchaser of Common Stock in this offering will experience an immediate dilution of the net tangible book value per share of our Common Stock. Our net tangible book value of our Common Stock as of June 30, 2020 was approximately \$(18.7) million, or approximately \$(0.54) per share of Common Stock based upon 34,291,065 shares outstanding. Net tangible book value per share is equal to our total tangible assets, less our total liabilities, divided by the total number of shares outstanding as of June 30, 2020.

Dilution per share of Common Stock equals the difference between the amount per share of Common Stock paid by the purchaser of Common Stock in this offering and the net tangible book value per share of our Common Stock immediately after the offering.

After giving effect to the sale by us of 14,506,665 shares of Common Stock at the offering price of approximately \$2.08 per share of Common Stock, and after deducting estimated offering expenses, our pro forma net tangible book value as of August 31, 2020 would have been \$11.3 million, or \$0.23 per share. This represents an immediate increase in pro forma net tangible book value to existing stockholders of \$0.77 per share and an immediate dilution to the purchaser of \$1.85 per share. The following table illustrates this per-share dilution:

|  |    |             |
|--|----|-------------|
| Offering price per share of common stock   | \$ | 2.08        |
| Net tangible book value per share as of June 30, 2020  | \$ | (0.54)      |
| Increase in net tangible book value per share attributable to offering                           | \$ | 0.77        |
| Pro forma net tangible book value per share as of June 30, 2020, after giving effect to offering | \$ | 0.23        |
| Dilution in net tangible book value per share to the purchaser in the offering                   | \$ | <u>1.85</u> |

To the extent outstanding warrants or options are exercised, there will be further dilution to new investors. In addition, to the extent that we issue additional equity securities in connection with future capital raising activities, our then-existing stockholders may experience dilution.

## USE OF PROCEEDS

We estimate the net proceeds from this offering will be approximately \$30.0 million after deducting our estimated offering expenses.

We currently estimate that we will use the net proceeds from this offering to fund ongoing clinical development of tilsotolimod (IMO-2125) for oncology and for general corporate and working capital purposes.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials and other development efforts and other factors described under “Risk Factors” in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we may invest the net proceeds from this offering in investment-grade, interest-bearing securities.

## PLAN OF DISTRIBUTION

This prospectus supplement and the accompanying prospectus relate to the issuance and sale of up to \$30,173,865 of shares of our Common Stock that we may issue to Lincoln Park from time to time under the Amended Purchase Agreement. This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Lincoln Park to the public.

Pursuant to the Amended Purchase Agreement, over the 36-month term following the Commencement Date, up to an aggregate amount of \$30,173,865 (subject to certain limitations) of shares of our Common Stock, we have the right, but not the obligation, from time to time, in our sole discretion and subject to certain conditions, to direct Lincoln Park to purchase up to the Regular Purchase Share Limit in a Regular Purchase. The Regular Purchase Share Limit will increase to 200,000 shares, if the closing price of our Common Stock on the purchase date is not below \$5.00. In any case, Lincoln Park’s maximum obligation under any single Regular Purchase will not exceed \$2,000,000, unless we mutually agree to increase the maximum amount of such Regular Purchase. The purchase price for shares of Common Stock to be purchased by Lincoln Park under a Regular Purchase will be the equal to the lower of (in each case, subject to the adjustments described in the Amended Purchase Agreement):

- the lowest sale price for our Common Stock on the applicable purchase date; and
- the arithmetic average of the three lowest sale prices for our Common Stock during the ten trading days prior to the purchase date.

If we direct Lincoln Park to purchase the maximum number of shares of Common Stock we then may sell in a Regular Purchase, then in addition to such Regular Purchase, and subject to certain conditions and limitations in the Amended Purchase Agreement, we may direct Lincoln Park to make an “accelerated purchase” of an additional amount of Common Stock that may not exceed the lesser of (i) 300% of the number of shares purchased pursuant to the corresponding Regular Purchase and (ii) 30% of the total number of shares of our Common Stock traded during a specified period on the applicable purchase date as set forth in the Amended Purchase Agreement. Under certain circumstances and in accordance with the Amended Purchase Agreement, the Company may direct Lincoln Park to purchase shares in multiple accelerated purchases on the same trading day.

We will control the timing and amount of any sales of our Common Stock to Lincoln Park. There is no upper limit on the price per share that Lincoln Park must pay for our Common Stock under the Amended Purchase Agreement.

We may at any time, in our sole discretion terminate the Amended Purchase Agreement without fee, penalty or cost, upon one trading day written notice. In the event of bankruptcy proceedings by or against us, the Amended Purchase Agreement will automatically terminate without action of any party.

We may suspend the sale of shares to Lincoln Park pursuant to this prospectus supplement for certain periods of time for certain reasons, including if this prospectus supplement is required to be supplemented or amended to include additional material information.

Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that it will use an unaffiliated broker-dealer to effectuate all sales, if any, of the common stock that it may purchase from us pursuant to the Amended Purchase Agreement. Such sales will be made on the NYSE American at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

We know of no existing arrangements between Lincoln Park and any other stockholder, broker, dealer, underwriter, or agent relating to the sale or distribution of the shares offered by this Prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters, or dealers and any compensation from the selling stockholder, and any other required information.

We will pay all of the expenses incident to the registration, offering, and sale of the shares to Lincoln Park.

We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

Lincoln Park represented to us that at no time prior to the date of the Amended Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction. Lincoln Park agreed that during the term of the Amended Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered by this prospectus supplement.

Computershare Trust Company, N.A. is transfer agent and registrar for the Common Stock.

## LEGAL MATTERS

The validity of the securities offered hereby will be passed upon by Morgan, Lewis & Bockius LLP, Pittsburgh, Pennsylvania.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2019](#) and the effectiveness of our internal control over financial reporting as of December 31, 2019, as set forth in their reports (which contain an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements), which are incorporated by reference in prospectus supplement and the accompanying prospectus. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at <http://www.iderapharma.com>. Our website is not a part of this prospectus supplement or the accompanying prospectus and is not incorporated by reference into this prospectus supplement.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC. This prospectus supplement omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information contained in and exhibits filed to the registration statement for further information about us and the securities we are offering. Statements in this prospectus supplement and the accompanying prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to those filings. You should review the complete document to evaluate these statements.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below (File No. 001-31918) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement of which this prospectus supplement forms a part is terminated or completed:



- [Our Annual Report on Form 10-K for the year ended December 31, 2019](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [definitive proxy statement on Schedule 14A for the 2020 Annual Meeting of Stockholders](#);
- Our Quarterly Reports on Form 10-Q for the fiscal quarter ended [March 31, 2020](#) and [June 30, 2020](#);
- Our Current Reports on Form 8-K filed on [January 15, 2020](#) (Item 5.02 and related exhibits 10.1 and 10.2 only), [January 27, 2020](#), [April 7, 2020](#), [May 1, 2020](#) (Item 8.01 only), [May 14, 2020](#), [May 18, 2020](#), [June 15, 2020](#) and [July 15, 2020](#); and
- The description of our common stock contained in our [Registration Statement on Form 8-A filed on December 4, 2003](#), as amended on [August 17, 2007](#) and as further amended on [December 7, 2007](#), including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information below. We will provide copies of the exhibits to these filings only if they are specifically incorporated by reference in these filings.

Idera Pharmaceuticals, Inc.  
505 Eagleview Blvd., Suite 212  
Exton, Pennsylvania 19341  
Attention: Investor Relations  
(484) 348-1600

**\$150,000,000**

# **IDERA PHARMACEUTICALS, INC.**

**Common Stock**

**Preferred Stock**

**Depositary Shares**

**Warrants**

We may offer and sell securities from time to time in one or more offerings of up to \$150,000,000 in aggregate offering price. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on the Nasdaq Capital Market under the symbol "IDRA." On July 31, 2020, the closing sale price of our common stock on the Nasdaq Capital Market was \$1.99 per share. You are urged to obtain current market quotations for our common stock.

**INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "[RISK FACTORS](#)" ON PAGE 6 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND IN THE DOCUMENTS INCLUDED BY REFERENCE IN THIS PROSPECTUS OR ANY PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.**

**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 August 4, 2020.**

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$150,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the heading “Where You Can Find More Information” beginning on page 2 of this prospectus.

We have not authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Unless the context otherwise indicates, references in this prospectus to “we,” “our” and “us” collectively refer to Idera Pharmaceuticals, Inc., a Delaware corporation.

**You should rely only on the information contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, including the information we incorporate by reference as described under “Where You Can Find More Information.” We have not authorized anyone to provide you with different information. If you receive any other information, you should not rely on it. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.**

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at <http://www.iderapharma.com>. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

## INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

- (1) [Our Annual Report on Form 10-K for the year ended December 31, 2019](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [definitive proxy statement on Schedule 14A for the 2020 Annual Meeting of Stockholders](#);
- (2) Our Quarterly Reports on Form 10-Q for the fiscal quarter ended [March 31, 2020](#) and [June 30, 2020](#);
- (3) Our Current Reports on Form 8-K filed on [January 15, 2020](#) (Item 5.02 and related exhibits 10.1 and 10.2 only), [January 27, 2020](#), [April 7, 2020](#), [May 1, 2020](#) (Item 8.01 only), [May 14, 2020](#), [May 18, 2020](#), [June 15, 2020](#) and [July 15, 2020](#);
- (4) The description of our common stock contained in our [Registration Statement on Form 8-A filed on December 4, 2003](#), as amended on [August 17, 2007](#) and as further amended on [December 7, 2007](#), including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information below. We will provide copies of the exhibits to these filings only if they are specifically incorporated by reference in these filings.

Idera Pharmaceuticals, Inc.  
505 Eagleview Blvd., Suite 212  
Exton, Pennsylvania 19341  
Attention: Investor Relations  
(484) 348-1600

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we incorporate by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical fact, included or incorporated in this prospectus regarding our strategy, future operations, clinical trials, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans, and objectives of management are forward-looking statements. The words “believes,” “anticipates,” “estimates,” “plans,” “expects,” “intends,” “may,” “could,” “should,” “potential,” “likely,” “projects,” “continue,” “will,” “schedule,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties, and other factors, which may be beyond our control, and which may cause our actual results, performance, or achievements to be materially different from future results, performance, or achievements expressed or implied by such forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. See “Risk Factors” in this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2019 for more information. These factors and the other cautionary statements made in this prospectus and the documents we incorporate by reference should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus and the documents we incorporate by reference. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus is filed with the SEC and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as may be required by law.

## **IDERA PHARMACEUTICALS, INC.**

We are a clinical-stage biopharmaceutical company with a business strategy focused on the clinical development, and ultimately the commercialization, of drug candidates for both oncology and rare disease indications characterized by small, well-defined patient populations with serious unmet medical needs. Our current focus is on our Toll-like receptor, or TLR, agonist, tilsotolimod (IMO-2125), for oncology. We believe we can develop and commercialize targeted therapies on our own. To the extent we seek to develop drug candidates for broader disease indications, we have entered into and may explore additional collaborative alliances to support development and commercialization.

TLRs are key receptors of the immune system and play a role in innate and adaptive immunity. As a result, we believe TLRs are potential therapeutic targets for the treatment of a broad range of diseases. Using our chemistry-based platform, we designed both TLR agonists and antagonists to act by modulating the activity of targeted TLRs. A TLR agonist is a compound that stimulates an immune response through the targeted TLR. A TLR antagonist is a compound that inhibits an immune response by blocking the targeted TLR.

Our current TLR-targeted clinical-stage drug candidate, tilsotolimod, is an agonist of TLR9. We are currently developing tilsotolimod, via intratumoral injection, for the treatment of anti-PD1 refractory metastatic melanoma in combination with ipilimumab, an anti-CTLA4 antibody marketed as Yervoy® by Bristol Myers Squibb Company (“BMS”) in a Phase 3 registration trial. We are also evaluating intratumoral tilsotolimod in combination with nivolumab, an anti-PD1 antibody marketed as Opdivo® by BMS, and ipilimumab for the treatment of solid tumors in a multicohort Phase 2 trial.

### **Corporate Information**

Our executive offices are located at 505 Eagleview Boulevard, Suite 212, Exton, Pennsylvania 19341, our telephone number is (484) 348-1600 and our Internet address is [www.iderapharma.com](http://www.iderapharma.com). The information on our website is not incorporated by reference in this prospectus and should not be considered to be part of this prospectus. Our website address is included in this prospectus as an inactive technical reference only. Unless the context otherwise requires, references in this prospectus to “Idera Pharmaceuticals,” “we,” “us,” and “our” refer to Idera Pharmaceuticals, Inc. Idera® and IMO® are our trademarks. All other trademarks and service marks appearing in this registration statement are the property of their respective owners.



## **RISK FACTORS**

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described in this prospectus, including the risk factors set forth in the documents and reports filed with the SEC that are incorporated by reference herein, such as the risk factors under the heading “Risk Factors” in our most recent Annual Report on Form 10-K on file with the SEC, which are incorporated by reference in this prospectus, before purchasing our common stock. If any of these risks actually occurs, our business, financial condition or results of operations would likely suffer, possibly materially. In that case, the trading price of our common stock could fall, and you may lose all or part of the money you paid to buy our common stock.

## USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development costs, the acquisition or licensing of complementary products, technologies or businesses, working capital and capital expenditures. We may temporarily invest the net proceeds in investment-grade, interest-bearing securities until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

## DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our certificate of incorporation and our bylaws, each as amended from time to time, and by applicable provisions of Delaware corporate law. You should read our certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

### Common Stock

We are authorized to issue 140,000,000 shares of common stock, \$0.001 par value per share. As of July 31, 2020, there were 35,199,246 shares of common stock outstanding.

*Annual Meeting.* Annual meetings of our stockholders are held on the date designated in accordance with our bylaws. Written notice must be mailed to each stockholder entitled to vote not less than ten nor more than 60 days before the date of the meeting. The presence in person or by proxy of the holders of record of a majority of our issued and outstanding shares entitled to vote at such meeting constitutes a quorum for the transaction of business at meetings of the stockholders. Special meetings of the stockholders may be called for any purpose by the board of directors, the chief executive officer or, if the office of chief executive officer is vacant, our president.

*Voting Rights.* For all matters submitted to a vote of stockholders, each holder of common stock is entitled to one vote for each share held. Our common stock does not have cumulative voting rights.

*Dividends.* If our board of directors declares a dividend, holders of common stock will receive payments from our funds that are legally available to pay dividends. However, this dividend right is subject to any preferential dividend rights that we have granted or may grant with respect to our preferred stock.

*Liquidation, Dissolution or Winding-Up.* Upon our liquidation, dissolution or winding-up, the holders of the common stock will be entitled to share equally in all assets available for distribution to stockholders, subject to preferences that may apply to shares of preferred stock outstanding at that time. The amount available for common stockholders is calculated after payment of liabilities.

*Other Rights and Restrictions.* Holders of our common stock do not have preemptive rights, and they have no right to convert their common stock into any other securities. Our common stock is not subject to redemption by us. The rights, preferences and privileges of common stockholders are subject to the rights of the stockholders of any series of preferred stock that are issued and outstanding or that we may issue in the future. Our certificate of incorporation and bylaws do not restrict the ability of a holder of common stock to transfer his or her shares of common stock.

*Put Right.* Pursuant to the terms of a unit purchase agreement dated as of May 5, 1998, we issued and sold a total of 149,960 shares of common stock, which we refer to as the put shares, at a price of \$128.00 per share. Under the terms of the unit purchase agreement, the initial purchasers, which we refer to as the put holders, of the put shares have the right, which we refer to as the put right, to require us to repurchase the put shares. The put right may not be exercised by any put holder unless all of the following occur:

- we liquidate, dissolve or wind up our affairs pursuant to applicable bankruptcy law, whether voluntarily or involuntarily;
- all of our indebtedness and obligations, including without limitation the indebtedness under our outstanding notes, has been paid in full; and
- all rights of the holders of any series or class of capital stock ranking prior and senior to the common stock with respect to liquidation, including without limitation the series A convertible preferred stock, have been satisfied in full.

We may terminate the put right upon written notice to the put holders if the closing sales price of our common stock exceeds \$256.00 per share for the 20 consecutive trading days prior to the date of notice of termination. Because the put right is not transferable, in the event that a put holder has transferred put shares since May 5, 1998, the put right with respect to those shares has terminated. As a consequence of the put right, in the event we are liquidated, holders of shares of common stock that do not have put rights with respect to such shares may receive smaller distributions per share upon our liquidation than if there were no put rights outstanding.

As of July 31, 2020, we had repurchased or received documentation of the transfer of 49,993 put shares and 4,472 of the put shares continued to be held in the name of put holders. We cannot determine at this time what portion of the put rights of the remaining 95,494 put shares have terminated.

*Transfer Agent and Registrar.* Computershare Trust Company, N.A. is transfer agent and registrar for the common stock.

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

### **Preferred Stock**

We are authorized to issue 5,000,000 shares of preferred stock, \$0.01 par value per share, of which 1,500,000 has been designated Series A convertible preferred stock, 277,921 has been designated Series B1 redeemable convertible preferred stock, 98,685 has been designated Series B2 redeemable convertible preferred stock, 82,814 has been designated Series B3 redeemable convertible preferred stock, and 82,814 has been designated Series B4 redeemable convertible preferred stock. As of July 31, 2020, there were 655 shares of Series A preferred stock outstanding and 23,684 shares of Series B1 preferred stock outstanding. No other shares of preferred stock were outstanding.

The terms of any series of preferred stock that are offered pursuant to this prospectus will be described in the prospectus supplement relating to that series of preferred stock. The terms of any series of preferred stock may differ from the terms described below. Certain provisions of the preferred stock that may be offered by us pursuant to this prospectus as described below and in any applicable prospectus supplement are not complete.

We are authorized to issue “blank check” preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue such preferred shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock that is offered pursuant to this prospectus has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock being offered. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share, if any;
- the price at which the preferred stock will be issued;

- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions;
- whether we have elected to offer depositary shares as described under “Description of Depositary Shares;” and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and nonassessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock that may be issued pursuant to this prospectus. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

As described under “Description of Depositary Shares,” we may, at our option, with respect to any series of preferred stock, elect to offer fractional interests in shares of preferred stock, and provide for the issuance of depositary receipts representing depositary shares, each of which will represent a fractional interest in a share of the series of preferred stock. The fractional interest will be specified in the prospectus supplement relating to a particular series of preferred stock.

*Rank.* Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;
- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and
- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

*Dividends.* Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

*Liquidation Preference.* Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

*Redemption.* If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then current dividend period; or
- if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or

- if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

- the redemption date;
- the number of shares and series of preferred stock to be redeemed;
- the redemption price;
- the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;
- that dividends on the shares to be redeemed will cease to accrue on such redemption date;
- the date on which the holder's conversion rights, if any, as to such shares shall terminate; and
- the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

*Voting Rights.* Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

*Conversion Rights.* The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

*Transfer Agent and Registrar.* We serve as the transfer agent and registrar for our outstanding preferred stock.

## **Effects of Authorized but Unissued Stock**

We have shares of common stock and preferred stock available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of the Nasdaq Capital Market. We may utilize these additional shares for a variety of corporate purposes, including for future public offerings to raise additional capital, or facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a controlling interest in our company by means of a merger, tender offer, proxy contest or otherwise. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock, and the likelihood that such holders will receive dividend payments and payments upon liquidation.

## **Delaware Law and Specified Certificate of Incorporation and Bylaw Provisions**

*Staggered Board.* Our certificate of incorporation and bylaws provide for the division of our board of directors into three classes as nearly equal in size as possible with staggered three-year terms. In addition, our certificate of incorporation and bylaws provide that directors may only be removed for cause and then only by the affirmative vote of the holders of two-thirds of the shares of our capital stock entitled to vote. Under our certificate of incorporation and bylaws, any vacancy on the board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of a majority of the directors then in office. The classification of the board of directors and the limitations on the removal of directors and filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, control of us.

*Stockholder Action; Special Meeting of Stockholders.* Our certificate of incorporation and bylaws provide that stockholders may take action only at a duly called annual or special meeting of stockholders and may not take action by written consent. Our certificate of incorporation and bylaws further provide that special meetings of our stockholders may be called only by a majority of the board of directors or by our chief executive officer or, if the office of chief executive officer is vacant, our president. In no event may our stockholders call a special meeting of stockholders.

*Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Our bylaws provide that stockholders seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors at an annual meeting of stockholders, must meet specified procedural requirements. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual or special meeting of stockholders.

*Supermajority Votes Required.* The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our certificate of incorporation and bylaws require the affirmative vote of the holders of at least 75% of the shares of our capital stock issued and outstanding and entitled to vote to amend or repeal any of the provisions described in the prior three paragraphs.

*Business Combinations.* We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that such person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which such person became an interested stockholder. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.



*Directors' Liability.* Our certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

*Exclusive Forum Charter Provision.* Our certificate of incorporation requires that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for the following:

- any derivative action or proceeding brought on behalf of the corporation;
- any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the corporation to the corporation or the corporation's stockholders, creditors or other constituents;
- any action asserting a claim against the corporation arising pursuant to any provision of the Delaware General Corporation Law, the corporation's certificate of incorporation or the bylaws of the corporation; or
- any action asserting a claim against the corporation governed by the internal affairs doctrine, in each such case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein.

Provided, that, if and only if the Court of Chancery of the State of Delaware dismisses any of the foregoing actions for lack of subject matter jurisdiction, any such action or actions may be brought in another state court sitting in the State of Delaware. Because the applicability of the exclusive forum provision is limited to the extent permitted by applicable law, we do not intend that the exclusive forum provision would apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction, and acknowledge that federal courts have concurrent jurisdiction over all suits brought to enforce any duty or liability created by the Securities Act. We note that there is uncertainty as to whether a court would enforce the provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

## DESCRIPTION OF DEPOSITARY SHARES

### General

We may, at our option, elect to offer fractional shares of preferred stock, which we call depositary shares, rather than full shares of preferred stock. If we do, we will issue to the public receipts, called depositary receipts, for depositary shares, each of which will represent a fraction, to be described in the applicable prospectus supplement, of a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence and paying certain charges.

The summary of terms of the depositary shares contained in this prospectus is not a complete description of the terms of the depositary shares. You should refer to the form of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC.

### Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions, if any, received in respect of the preferred stock underlying the depositary shares to the record holders of depositary shares in proportion to the numbers of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the underlying preferred stock.

If there is a distribution other than in cash, the depositary will distribute property (including securities) received by it to the record holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, adopt another method for the distribution, including selling the property and distributing the net proceeds from the sale to the holders.

### Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of us, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

### Withdrawal of Stock

Unless the related depositary shares have been previously called for redemption, upon surrender of the depositary receipts at the office of the depositary, the holder of the depositary shares will be entitled to delivery, at the office of the depositary to or upon his or her order, of the number of whole shares of the preferred stock and any money or other property represented by the depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. In no event will the depositary deliver fractional shares of preferred stock upon surrender of depositary receipts. Holders of preferred stock thus withdrawn may not thereafter deposit those shares under the deposit agreement or receive depositary receipts evidencing depositary shares therefor.

## **Redemption of Depositary Shares**

Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of the preferred stock so redeemed, so long as we have paid in full to the depositary the redemption price of the preferred stock to be redeemed plus an amount equal to any accumulated and unpaid dividends on the preferred stock to the date fixed for redemption. The redemption price per depositary share will be equal to the redemption price and any other amounts per share payable on the preferred stock multiplied by the fraction of a share of preferred stock represented by one depositary share. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata or by any other equitable method as may be determined by the depositary.

After the date fixed for redemption, depositary shares called for redemption will no longer be deemed to be outstanding and all rights of the holders of depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon redemption upon surrender to the depositary of the depositary receipts evidencing the depositary shares.

## **Voting the Preferred Stock**

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts relating to that preferred stock. The record date for the depositary receipts relating to the preferred stock will be the same date as the record date for the preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the number of shares of preferred stock represented by the depositary shares in accordance with those instructions, and we will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote any shares of preferred stock except to the extent it receives specific instructions from the holders of depositary shares representing that number of shares of preferred stock.

## **Charges of Depositary**

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay charges of the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay transfer, income and other taxes and governmental charges and such other charges (including those in connection with the receipt and distribution of dividends, the sale or exercise of rights, the withdrawal of the preferred stock and the transferring, splitting or grouping of depositary receipts) as are expressly provided in the deposit agreement to be for their accounts. If these charges have not been paid by the holders of depositary receipts, the depositary may refuse to transfer depositary shares, withhold dividends and distributions and sell the depositary shares evidenced by the depositary receipt.

## **Amendment and Termination of the Deposit Agreement**

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment that materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by the holders of a majority of the outstanding depositary shares. The deposit agreement may be terminated by the depositary or us only if:

- all outstanding depositary shares have been redeemed; or
- there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

### **Resignation and Removal of Depositary**

The depositary may resign at any time by delivering to us notice of its election to do so, and we may remove the depositary at any time. Any resignation or removal of the depositary will take effect upon our appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having the requisite combined capital and surplus as set forth in the applicable agreement.

### **Notices**

The depositary will forward to holders of depositary receipts all notices, reports and other communications, including proxy solicitation materials received from us, that are delivered to the depositary and that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

### **Limitation of Liability**

Neither we nor the depositary will be liable if we or it is prevented or delayed by law or any circumstance beyond its control in performing its obligations. Our obligations and those of the depositary will be limited to performance in good faith of our and their duties thereunder. We and the depositary will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. We and the depositary may rely upon written advice of counsel or accountants, on information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent to give such information and on documents believed to be genuine and to have been signed or presented by the proper party or parties.

## DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock, preferred stock or depositary shares. We may offer warrants separately or together with one or more additional warrants, common stock, preferred stock or depositary shares, or any combination of those securities, as described in the applicable prospectus supplement. The applicable prospectus supplement will also describe the following terms of any warrants:

- the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants are to be sold separately or with other securities;
- whether the warrants will be issued in definitive or global form or in any combination of these forms;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- the designation and terms of any equity securities purchasable upon exercise of the warrants;
- if applicable, the designation and terms of the preferred stock or depositary shares with which the warrants are issued and the number of warrants issued with each security;
- the number of shares of common stock, the number of shares of preferred stock or the number of depositary shares purchasable upon exercise of a warrant and the price at which those shares may be purchased;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

## FORMS OF SECURITIES

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

### Global Securities

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

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

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

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

Any payments to holders with respect to depositary shares or warrants represented by a global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the global security. None of us, or any warrant agent or other agent of ours, or any agent of any warrant agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

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

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

## PLAN OF DISTRIBUTION

We may sell securities:

- through underwriters;
- through dealers;
- through agents;
- directly to purchasers; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions:

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

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price and the proceeds we will receive from the sale of the securities;
- any discounts and commissions to be allowed or re-allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or re-allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them. The securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale. The name of the dealer and the terms of the transaction will be identified in the applicable prospectus supplement.



If an agent is used in an offering of securities being offered by this prospectus, the agent will be named, and the terms of the agency will be described, in the applicable prospectus supplement relating to the offering. Unless otherwise indicated in the prospectus supplement, an agent will act on a best efforts basis for the period of its appointment.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than three scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

## LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Morgan, Lewis & Bockius LLP, Pittsburgh, Pennsylvania.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2019](#) and the effectiveness of our internal control over financial reporting as of December 31, 2019, as set forth in their reports (which contain an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements), which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.



Up to \$30,173,865

Common Stock

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**PROSPECTUS SUPPLEMENT**

September 3, 2020

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