

Edge Therapeutics, Inc.
Form 424B3
February 15, 2019
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Registration Statement No.: 333-228937

PROPOSED MERGER

YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Edge Therapeutics, Inc. and PDS Biotechnology Corporation:

Edge Therapeutics, Inc., a Delaware corporation, or Edge, and Echos Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Edge, or Echos Merger Sub, and PDS Biotechnology Corporation, a Delaware corporation, or PDS, have entered into an Agreement and Plan of Merger and Reorganization, or Merger Agreement, pursuant to which Echos Merger Sub will merge with and into PDS, with PDS surviving the merger as a wholly-owned subsidiary of the combined company. These transactions are referred to herein collectively as the merger. Following the merger, Edge will be renamed PDS Biotechnology Corporation and is sometimes referred to herein as the combined company. The merger will result in a clinical-stage immuno-oncology biotechnology company developing novel product candidates for the potential treatment of early- and late-stage cancer, with a growing pipeline of next-generation cancer immunotherapies based on the proprietary, multi-functional Versamune[®] technology platform.

At the closing of the merger, (a) each outstanding share of capital stock of PDS, will be converted into the right to receive approximately 6.5366 shares of Edge common stock, or the Exchange Ratio, subject to adjustment for any reverse stock split, and (b) each outstanding PDS stock option, whether vested or unvested, and warrant that has not previously been exercised prior to the effective time of merger will be converted into a stock option or warrant, as the case may be, to purchase approximately 6.5366 shares of Edge common stock, subject to adjustment for any reverse stock split. This Exchange Ratio is an estimate only and the final Exchange Ratio will be determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement. Under the Exchange Ratio formula in the Merger Agreement, as of immediately after the merger, the former PDS securityholders are expected to own approximately 70% of the aggregate number of shares of the common stock of the combined company issued and outstanding immediately following the closing of the merger, or the Post-Closing Shares, and the securityholders of Edge as of immediately prior to the closing of the merger are expected to own approximately 30% of the aggregate number of Post-Closing Shares. These percentages assume that the Exchange Ratio is not adjusted for net cash balances or otherwise, as described in the section titled "The Merger Agreement" below. For a more complete description of the Exchange Ratio please see the section titled "The Merger Agreement-Exchange Ratio" in this proxy statement/prospectus/information statement.

Shares of Edge common stock are currently listed on the Nasdaq Global Select Market under the symbol EDGE. Prior to the closing of the merger, Edge intends to file an initial listing application for the combined company with the Nasdaq Capital Market pursuant to its reverse merger rules. After the closing of the merger, the combined company expects to trade on the Nasdaq Capital Market under the symbol PDSB. On February 8, 2019, the latest practicable date before the printing of this proxy statement/prospectus/information statement, the closing sale price of Edge common stock was \$0.43 per share.

Edge is holding a special meeting of stockholders in order to obtain the stockholder approvals necessary to complete

the merger and related matters. At the Edge special meeting, which will be held on March 14, 2019 at 9:00 a.m., local time, at 300 Connell Drive, Suite 4000 Berkeley Heights, NJ 07922, unless postponed or adjourned to a later date, Edge will ask its stockholders, among other things, to approve the issuance of shares of Edge common stock as consideration in the merger, to approve an amendment to Edge's certificate of incorporation effecting a reverse stock split of Edge common stock at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS, and to approve an amendment to the Edge 2014 Equity Incentive Plan, each as described in this proxy statement/prospectus/information statement.

As described in this proxy statement/prospectus/information statement, certain PDS stockholders who in the aggregate own approximately 82% of the outstanding shares of PDS common stock, and certain Edge stockholders who in the aggregate own approximately 13.4% of the outstanding shares of Edge common stock, are parties to support agreements with Edge and PDS, pursuant to which such stockholders have agreed to vote such shares in favor of approving certain of the transactions contemplated by the Merger Agreement, including the merger, and the issuance of shares of common stock pursuant to the Merger Agreement and the reverse stock split, respectively, subject to the terms of the support agreements. No meeting of PDS stockholders to adopt the Merger Agreement and approve the merger and related transactions will be held. Instead, all PDS stockholders will have the opportunity to vote to adopt the Merger Agreement and approve the merger and related transactions, by signing and returning to PDS a written consent following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the Securities and Exchange Commission. The holders of a sufficient number of shares of PDS common stock required to adopt the Merger Agreement and approve the merger and related transactions have agreed to adopt the Merger Agreement and approve the merger and related transactions via written consent. PDS stockholders, including those who are parties to support agreements, are requested to execute written consents providing such approvals.

After careful consideration, the respective Edge and PDS boards of directors have unanimously approved the Merger Agreement and the transactions contemplated thereby, including the proposals referred to above (other than Brian Leuthner, Edge's President and Chief Executive Officer, who recused himself from the Edge board of directors vote). The Edge board of directors, or the Edge Board, unanimously recommends that its stockholders vote FOR each of the Stock Issuance Proposal, the Reverse Stock Split Proposal and the Equity Incentive Plan Proposal, each as is described in this proxy statement/prospectus/information statement, and the PDS board of directors, or the PDS Board, unanimously recommends that its stockholders sign and return the written consent indicating their approval of the merger and adoption of the Merger Agreement and related transactions to PDS.

More information about Edge, PDS and the proposed transactions are contained in this proxy statement/prospectus/information statement. Edge and PDS urge you to read this proxy statement/prospectus/information statement carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER RISK FACTORS BEGINNING ON PAGE 25.

Edge and PDS are excited about the opportunities the merger brings to both Edge and PDS stockholders, and thank you for your consideration and continued support.

Brian A. Leuthner
President & Chief Executive Officer
Edge Therapeutics, Inc.

Frank Bedu-Addo
President & Chief Executive Officer
PDS Biotechnology Corporation

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 proxy statement/prospectus/information statement. Any representation to the contrary is a criminal offense.

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This proxy statement/prospectus/information statement is dated February 14, 2019, and is first being mailed to Edge and PDS stockholders on or about February 15, 2019.

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EDGE THERAPEUTICS, INC.
300 Connell Drive, Suite 4000
Berkeley Heights, NJ 07922
(800) 208-3343

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On March 14, 2019

Dear Stockholders of Edge:

On behalf of the board of directors of Edge Therapeutics, Inc., a Delaware corporation, or Edge, Edge is pleased to deliver this proxy statement/prospectus/information statement for the proposed merger between Edge and PDS, a Delaware corporation, or PDS, pursuant to which Echos Merger Sub, Inc., a wholly-owned subsidiary of Edge, will merge with and into PDS, with PDS surviving the merger as a wholly-owned subsidiary of the combined company. The special meeting of stockholders of Edge will be held on March 14, 2019 at 9:00 a.m., local time at 300 Connell Drive, Suite 4000 Berkeley Heights, NJ 07922, for the following purposes:

1. To consider and vote upon a proposal to approve the issuance of shares of Edge common stock pursuant to the Agreement and Plan of Merger and Reorganization, dated as of November 23, 2018, by and among Edge, Echos Merger Sub, Inc. and PDS, a copy of which is attached as *Annex A-I* to this proxy statement/prospectus/information statement as amended by Amendment No. 1 thereto, dated January 24, 2019, a copy of which is attached as *Annex A-II* to this proxy statement/prospectus/information statement, or the Stock Issuance Proposal;
2. To consider and vote upon an amendment to the certificate of incorporation of Edge to effect a reverse stock split of Edge common stock, at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS, the form of which is attached as *Annex B* to this proxy statement/prospectus/information statement, or the Reverse Stock Split Proposal; and
3. To consider and vote upon approving Amended and Restated Edge Therapeutics, Inc. 2014 Equity Incentive Plan, or the Restated Plan, the form of which is attached as *Annex C* to this proxy statement/prospectus/information statement, which, among other items, increases the number of shares Edge common stock available for grant under Edge's equity-based incentive compensation program, or the Equity Incentive Plan Proposal. If the Stock Issuance Proposal is not approved, the Equity Incentive Plan Proposal will be automatically withdrawn.

The Edge Board has fixed January 30, 2019 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Edge special meeting and any adjournment or postponement thereof. Only holders of record of shares of Edge common stock at the close of business on the record date are entitled to notice of, and to vote at, the Edge special meeting. At the close of business on the record date, Edge had 31,509,822 shares of common stock outstanding and entitled to vote.

Your vote is important. The affirmative vote of the holders of a majority of the shares of Edge common stock properly cast at the Edge special meeting, presuming a quorum is present, is required for approval of both the Stock Issuance Proposal and the Equity Incentive Plan Proposal. The affirmative vote of the holders of a majority of the Edge common stock outstanding on the record date for the Edge special meeting is required for the approval of the Reverse Stock Split Proposal. No Edge Proposal is conditioned upon any other Edge Proposal.

Even if you plan to attend the Edge special meeting in person, Edge requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Edge special meeting if you are unable to attend.

By Order of the Edge Board of Directors,

W. Bradford Middlekauff
Senior Vice President, General Counsel and Secretary
Berkeley Heights, NJ 07922

February 14, 2019

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THE EDGE BOARD HAS DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EDGE AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE EDGE BOARD UNANIMOUSLY RECOMMENDS THAT EDGE STOCKHOLDERS VOTE FOR EACH OF THE STOCK ISSUANCE PROPOSAL, THE REVERSE STOCK SPLIT PROPOSAL AND THE EQUITY INCENTIVE PLAN PROPOSAL.

REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus/information statement incorporates important business and financial information about Edge that is not included in or delivered with this document. You may obtain this information without charge through the SEC website (www.sec.gov) or upon your written or oral request by contacting the Secretary of Edge Therapeutics, Inc., 300 Connell Drive, Suite 4000, Berkeley Heights, NJ 07922 or by calling (908) 242-3899.

To ensure timely delivery of these documents, any request should be made no later than February 28, 2019 to receive them before the special meeting.

For additional details about where you can find information about Edge, please see the section titled *Where You Can Find More Information* in this proxy statement/prospectus/information statement.

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QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus/information statement does not give effect to the proposed reverse stock split of Edge common stock described in the Reverse Stock Split Proposal in this proxy statement/prospectus/information statement.

The following section provides answers to frequently asked questions about the merger. This section, however, provides only summary information. For a more complete response to these questions and for additional information, please refer to the cross-referenced sections.

Q: What is the merger?

Edge Therapeutics, Inc., or Edge, and PDS Biotechnology Corporation, or PDS, have entered into an Agreement and Plan of Merger and Reorganization, dated November 23, 2018, as amended by Amendment No. 1 thereto dated January 24, 2019, or the Merger Agreement. The Merger Agreement contains the terms and conditions of **A:** the proposed business combination of Edge and PDS. Under the Merger Agreement, Echos Merger Sub, Inc., a wholly-owned subsidiary of Edge, will merge with and into PDS, with PDS surviving the merger as a wholly-owned subsidiary of the combined company. Following the merger, Edge will be renamed PDS Biotechnology Corporation and is referred to herein as the combined company.

Subject to the terms and conditions of the Merger Agreement, at the effective time of the merger, or the Effective Time, (a) each outstanding share of capital stock of PDS (other than any shares held as treasury stock that will be cancelled), will be converted into the right to receive the number of shares of Edge common stock equal to the Exchange Ratio described below and (b) each outstanding PDS stock option, whether vested or unvested, and warrant that has not previously been exercised prior to the Effective Time will be assumed by Edge and converted into an option or warrant, as applicable, to purchase shares of Edge common stock, subject to adjustment for any reverse stock split, as described in the section titled "Treatment of PDS Stock Options and Warrants" below.

Under the Exchange Ratio formula in the Merger Agreement, as of immediately after the merger and assuming no adjustments for net cash balances as provided for in the Merger Agreement, the former PDS securityholders are expected to own approximately 70% of the aggregate number of shares of common stock of the combined company immediately following the Effective Time, the Post-Closing Shares, and the securityholders of Edge as of immediately prior to the merger are expected to own approximately 30% of the aggregate number of Post-Closing Shares. The Exchange Ratio will be fixed prior to closing to reflect Edge's and PDS's capitalization as of immediately prior to such time.

Q: What will happen to Edge if, for any reason, the merger does not close?

If, for any reason, the merger does not close, the Edge Board may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Edge or continue to operate the business of Edge. If the Stock Issuance Proposal is not approved but the Reverse Stock Split Proposal is approved, the Edge board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 in order to satisfy Edge's continued listing requirements on the Nasdaq **A:** Global Select Market. Edge may be unable to identify and complete an alternative strategic transaction or continue to operate the business due to limited cash availability, and it may be required to dissolve and liquidate its assets. In such case, Edge would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left to distribute to stockholders after paying the debts and other obligations of Edge and setting aside funds for reserves.

Q: Why are the companies proposing to merge?

A: Edge and PDS believe that the combined company will have several potential advantages, including: (i) an immunotherapy pipeline with multiple product candidates that have demonstrated promising efficacy and safety

results in pre-clinical and early-stage clinical studies, (ii) an efficient expected path to potential commercialization, (iii) operational synergies, (iv) a combined management team with experience in immuno-oncology and public company management and (v) a board of directors with experience in immuno-oncology and public company governance.

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Following the merger, the combined company will focus on developing PDS's Versamun® platform for next generation immune-oncology products that are effective and safe across a broad range of cancer types.

For a more complete discussion of Edge's and PDS's reasons for the merger, please see the section titled "The Merger—Edge Reasons for the Merger" and "The Merger—PDS Reasons for the Merger."

Q: Why am I receiving this proxy statement/prospectus/information statement?

You are receiving this proxy statement/prospectus/information statement because you have been identified as a stockholder of Edge or PDS as of the applicable record date, and you are entitled, as applicable, to vote at the

A: Edge stockholder meeting to approve among other things the issuance of shares of Edge common stock pursuant to the Merger Agreement and reverse stock split, or sign and return the PDS written consent to adopt the Merger Agreement and approve the transactions contemplated thereby. This document serves as:

- a proxy statement of Edge used to solicit proxies for its special meeting of stockholders;
- a prospectus of Edge used to issue shares of Edge common stock in exchange for shares of PDS common stock in the merger; and
- an information statement of PDS used to solicit the written consent of its stockholders for the adoption of the Merger Agreement and the approval of the merger and related transactions.

Q: What is required to consummate the merger?

To consummate the merger, Edge stockholders must approve the issuance of shares of Edge common stock

A: pursuant to the Merger Agreement and the reverse stock split. In addition, PDS stockholders must adopt the Merger Agreement and approve the merger and the transactions contemplated thereby.

The approval of the issuance of Edge common stock pursuant to the Merger Agreement by the stockholders of Edge requires the affirmative vote of the holders of a majority of the shares of Edge common stock properly cast at the Edge special meeting, presuming a quorum is present at the meeting. The approval of the reverse stock split requires the affirmative vote of the holders of a majority of the Edge common stock outstanding on the record date for the Edge special meeting.

The adoption of the Merger Agreement and the approval of the merger and related transactions by the stockholders of PDS requires the affirmative vote of the holders of a majority of the outstanding shares of PDS common stock.

In addition to the requirement of obtaining such stockholder approval and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

The approval of the reverse stock split is required to avoid the delisting of Edge common stock from the Nasdaq Global Select Market. Therefore, if Edge's stockholders do not approve the Reverse Stock Split Proposal to effect the reverse stock split upon the closing of the merger, Edge has been advised that The Nasdaq Stock Market LLC will commence delisting proceedings immediately following the closing of the merger. If the Stock Issuance Proposal is not approved but the Reverse Stock Approval is approved, the Edge Board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 as determined solely by the Edge Board in order to satisfy Edge's continued listing requirements on the Nasdaq Global Select Market.

Certain PDS stockholders including certain directors and executive officers who in the aggregate own approximately 82% of the outstanding shares of PDS common stock, and certain Edge stockholders including certain current and former directors and executive officers who in the aggregate own approximately 13.4% of the outstanding shares of Edge common stock, are parties to support agreements with Edge and PDS pursuant to which such stockholders have agreed to vote for the adoption of the Merger Agreement and the merger and for the issuance of Edge common stock in the merger pursuant to the Merger Agreement and the reverse stock split, respectively, pursuant to the terms of the support agreements. In addition, following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the SEC and pursuant to the

conditions of the Merger Agreement, PDS stockholders who are party to the support agreements will each execute written consents approving the merger and related transactions. The holders of a sufficient

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number of shares of PDS common stock required to adopt the Merger Agreement have agreed to adopt the Merger Agreement via written consent. PDS stockholders, including those who are parties to support agreements, are requested to execute written consents providing such approvals. For a more detailed discussion of the support agreements see the section titled Agreements Related to the Merger-Support Agreements and Written Consent.

For a more complete description of the closing conditions under the Merger Agreement, please see the section titled The Merger Agreement—Conditions to the Closing of the Merger.

Q: What will PDS securityholders receive in the merger?

A: As a result of the merger, PDS securityholders will become entitled to receive shares of Edge common stock equal to approximately 70% of the aggregate number of Post-Closing Shares.

For a more complete description of what PDS securityholders will receive in the merger, please see the sections titled Market Price and Dividend Information and The Merger Agreement—Merger Consideration.

Q: What will Edge securityholders receive in the merger?

A: Edge securityholders will not receive any new securities in the merger, but will instead retain ownership of their shares of Edge common stock equal to approximately 30% of the aggregate number of Post-Closing Shares.

Q: Who will be the directors of the combined company following the merger?

A: Upon the closing of the merger, the combined company's board of directors is expected to be composed of seven directors. Three of the directors will be designated by Edge, and four of the directors will be designated by PDS and will be as follows:

Name	Current Principal Affiliation
Frank Bedu-Addo, PhD. ⁽²⁾	President & Chief Executive Officer, PDS
De Lyle W. Bloomquist ⁽²⁾	Former President, Global Chemicals Business for Tata Chemicals Ltd.
Gregory Freitag, J.D., CPA ⁽²⁾	General Counsel, AxoGen, Inc.
James Loughlin ⁽¹⁾	Former Partner, KPMG LLP
Robert Spiegel, M.D., FACP ⁽¹⁾	Former Chief Medical Officer, Schering-Plough Research Institute
Sir Richard Sykes ⁽²⁾	Former Chief Executive Officer and Chairman of GlaxoWellcome, and Chairman of GlaxoSmithKline
Andrew Saik ⁽¹⁾	Chief Financial Officer

(1) Edge designee

(2) PDS designee

In addition, Sol J. Barer, Ph.D., current chairman of the board of directors of Edge, chairman of the board of directors at Teva Pharmaceutical Industries Ltd. and who previously spent 24 years at Celgene as, among other positions, President, COO and CEO, as well as its Executive Chairman and Chairman, is expected to serve as an advisor to the board of directors of the combined company.

Q: Who will be the executive officers of combined company immediately following the merger?

A: Upon the closing of the merger, the executive management team of the combined company is expected to be composed of the following:

Name	Title
Frank Bedu-Addo, PhD.	Chief Executive Officer
Gregory Conn, PhD.	Chief Scientific Officer
Andrew Saik	Chief Financial Officer

Lauren Wood, M.D.

Chief Medical Officer

W. Bradford Middlekauff

Senior Vice President, General Counsel and Secretary

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Q: What are the intended U.S. federal income tax consequences of the merger to PDS United States stockholders?

Each of Edge and PDS intends that the merger qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. In general, the material tax consequences to U.S. Holders (as defined herein) of PDS common stock are expected to be as follows:

- Each PDS stockholder should not generally recognize gain or loss upon the exchange of PDS common stock for Edge common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Edge common stock as described below; and
- Each PDS stockholder should recognize gain or loss to the extent any cash received in lieu of a fractional share of Edge common stock exceeds or is less than the basis of such fractional share.

However, there are many requirements that must be satisfied in order for the merger to be treated as a reorganization under Section 368(a) of the Code, some of which are based upon factual determinations, and the reorganization treatment could be affected by actions taken after the merger. If the merger failed to qualify as a reorganization under Section 368(a) of the Code, the PDS stockholders generally would recognize the full amount of gains and losses realized on the exchange of their PDS common stock in the merger.

Tax matters are very complicated, and the tax consequences of the merger to a particular PDS stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of federal, state, local and foreign income and other tax laws. For more information, please see the section titled "The Merger—Certain Material U.S. Federal Income Tax Consequences of the Merger."

Q: Do persons involved in the merger have interests that may conflict with mine as an Edge stockholder?

Yes. In considering the recommendation of the Edge Board with respect to issuing shares of Edge common stock pursuant to the Merger Agreement and the other matters to be acted upon by Edge stockholders at the Edge special meeting, Edge stockholders should be aware that certain members of the Edge Board and executive officers of Edge have interests in the merger that may be different from, or in addition to, interests they have as Edge stockholders.

Edge has entered into employment agreements, stock option agreements and restricted stock unit agreements with its executive officers that provide them with cash severance payments and acceleration of certain of their outstanding equity awards in the event their employment is terminated without cause or for good reason in connection with a change in control. Based on the terms of these employment agreements, Edge's executive officers whose employment with Edge will end in connection with the merger will be contractually entitled to these severance payments and benefits. Additionally, all outstanding equity awards held by Edge's executive officers will accelerate fully and vest upon the closing of the merger. As of the date of this proxy statement/prospectus/information statement, Edge's executive officers held stock options to purchase an aggregate of 2,645,711 shares of Edge common stock with a weighted average exercise price of \$7.15 per share (all of which are out of the money based on the closing price of Edge common stock as of February 8, 2019) and held unvested restricted stock units covering 301,797 shares of Edge common stock. Based on data available as of the date of this proxy statement/prospectus/information statement, Edge's executive officers would be entitled to receive a total of approximately \$1,989,700 (collectively, not individually) in cash severance payments if their employment was terminated by Edge without cause or by them for good reason, in either case, in connection with the closing of the merger. For more information, please see the sections titled "The Merger—Interests of the Edge Directors and Executive Officers in the Merger."

Edge's non-employee directors hold restricted stock units totaling 80,000 shares of Edge common stock and hold stock options to purchase an aggregate of 2,546,089 shares of Edge common stock with a weighted average exercise price of \$4.72 per share as part of Edge's non-employee director compensation program. These stock options will by their terms vest in full upon the closing of the merger, including restricted stock units of 20,000 shares of Edge common stock and stock options for 240,607 and 64,286 shares of Edge common stock held by James Loughlin and Robert

Spiegel, M.D., FACP, respectively, each of whom is expected to remain on the combined company's board of directors. The parties expect that Dr. Sol Barer will

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enter into a consulting arrangement in connection with serving as an advisor to the board of directors of the combined company. Each of Dr. Barer, Ms. Crane and Dr. Spiegel, the members of the transactions committee, will receive \$10,000 for service on such committee. For more information, please see the section titled The Merger-Interests of the Edge Directors and Executive Officers in the Merger.

Q: Do persons involved in the merger have interests that may conflict with mine as a PDS stockholder?

Yes. In considering the recommendation of the PDS Board with respect to approving the merger and related transactions by written consent, PDS stockholders should be aware that certain members of the PDS Board and executive officers of PDS have interests in the merger that may be different from, or in addition to, interests they have as PDS stockholders. All of PDS's executive officers have options to purchase shares of PDS common stock which will vest and convert into options to purchase a number of shares of Edge common stock determined by the exchange ratio, rounding any resulting fractional shares down to the nearest whole share, certain of PDS's directors and executive officers are expected to become directors and executive officers of Edge upon the closing of the merger and all of PDS's directors and executive officers are entitled to certain indemnification and liability insurance coverage pursuant to the terms of the Merger Agreement. For more information, please see the section titled The Merger—Interests of the PDS Directors and Executive Officers in the Merger.

A:

Q: As an Edge stockholder, how does the Edge Board recommend that I vote?

A: After careful consideration, the Edge Board unanimously recommends that Edge stockholders vote:

- **FOR** the Stock Issuance Proposal to consider and vote upon the issuance of shares of Edge common stock pursuant to the Merger Agreement;
- **FOR** the Reverse Stock Split Proposal to consider and vote upon the amendment to the certificate of incorporation of Edge to effect a reverse stock split of Edge common stock, at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS; and
- **FOR** the Equity Incentive Plan Proposal to consider and vote to approve the Restated Plan, which, among other items, increases the number of shares of Edge common stock available for grant under Edge's equity-based incentive compensation program.

Except as stated below, no Edge Proposal is contingent upon any other Edge Proposal. Therefore, if the Stock Issuance Proposal is not approved but the Reverse Stock Split Approval is approved, the Edge Board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 as determined solely by the Edge Board in order to satisfy Edge's continued listing requirements on the Nasdaq Global Select Market. However, if the Merger is not consummated, the Equity Incentive Plan Proposal will be automatically withdrawn.

Q: Why is Edge proposing the Equity Incentive Plan Proposal?

The Restated Plan, which would become effective following the consummation of the merger, is intended to

A: maintain and strengthen Edge's ability to attract and retain key employees, directors, consultants and certain other individuals providing services to Edge and to motivate them to remain focused on long-term stockholder value.

Q: As a PDS stockholder, how does the PDS Board recommend that I vote?

After careful consideration, the PDS Board recommends that the PDS stockholders execute the written consent

A: indicating their votes in favor of the adoption of the Merger Agreement and the approval of the merger and the transactions contemplated thereby.

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Q: What risks should I consider in deciding whether to vote in favor of the issuance of shares of Edge common stock pursuant to the Merger Agreement or to execute and return the written consent approving the Merger Agreement and the transactions contemplated thereby, as applicable?

A: You should carefully review this proxy statement/prospectus/information statement, including the section titled Risk Factors, which sets forth certain risks and uncertainties related to the merger, risks and uncertainties to which the combined company's business will be subject, and risks and uncertainties to which each of Edge and PDS, as an independent company, is subject.

Q: When do you expect the merger to be consummated?

A: The merger is anticipated to close as soon as possible after the Edge special meeting is held on March 14, 2019, but Edge cannot predict the exact timing. For more information, please see the section titled The Merger Agreement-Conditions to the Closing of the Merger.

Q: What do I need to do now?

A: Edge and PDS urge you to read this proxy statement/prospectus/information statement carefully, including its annexes, and to consider how the merger affects you.

If you are an Edge stockholder, you may provide your proxy instructions in one of two different ways. First, you can mail your signed proxy card in the enclosed return envelope. Second, you may also provide your proxy instructions via the Internet by following the instructions on your proxy card or voting instruction form. Please provide your proxy instructions only once, unless you are revoking a previously delivered proxy instruction, and as soon as possible so that your shares can be voted at the special meeting of Edge stockholders.

If you are a PDS stockholder, you may execute and return your written consent to PDS in accordance with the instructions provided.

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?

A: If you are a stockholder of record and you return a signed proxy card without marking any selections, your shares will be voted **FOR** each of the Stock Issuance Proposal, the Reverse Stock Split Proposal and the Equity Incentive Plan Proposal.

If you do not give instruction to your broker, your broker can vote your Edge shares with respect to discretionary items but not with respect to non-discretionary items. It is anticipated that the Stock Issuance Proposal and Equity Incentive Plan Proposal will be a non-discretionary items. On non-discretionary items for which you do not give your broker instructions, the Edge shares will be treated as broker non-votes. Broker non-votes will not be considered to be shares entitled to vote at the meeting and will not be counted as having been voted on the applicable proposal. The Reverse Stock Split Proposal is a matter on which a broker or other nominee are generally empowered to vote, and therefore, limited or no broker non-votes are expected with respect to those proposals.

Q: May I vote in person at the special meeting of stockholders of Edge?

If your shares of Edge common stock are registered directly in your name with the Edge transfer agent, you are considered to be the stockholder of record with respect to those shares, and the proxy materials and proxy card are being sent directly to you by Edge. If you are an Edge stockholder of record, you may attend the special meeting of Edge stockholders and vote your shares in person. Even if you plan to attend the Edge special meeting in person, Edge requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Edge special meeting if you are unable to attend. If

A: your shares of Edge common stock are held in a brokerage account or by another nominee, you are considered the beneficial owner of shares held in street name, and the proxy materials are being forwarded to you by your broker or other nominee together with a voting instruction card. As the beneficial owner, you are also invited to attend the special meeting of Edge stockholders. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Edge special meeting unless you obtain a proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the meeting.

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Q: When and where is the special meeting of Edge stockholders being held?

A: The special meeting of Edge stockholders will be held at 300 Connell Drive, Suite 4000 Berkeley Heights, NJ 07922, at 9:00 a.m. local time, on March 14, 2019. Subject to space availability, all Edge stockholders as of the record date, or their duly appointed proxies, may attend the meeting. Since seating is limited, admission to the meeting will be on a first-come, first-served basis.

Q: If my Edge shares are held in street name by my broker, will my broker vote my shares for me?

A: Unless your broker has discretionary authority to vote on certain matters, your broker will not be able to vote your shares of Edge common stock on matters requiring discretionary authority without instructions from you. Brokers are not expected to have discretionary authority to vote for the Stock Issuance Proposal and Equity Incentive Plan Proposal. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker. Brokers are expected to have discretionary authority to vote for the Reverse Stock Split Proposal.

Q: May I change my vote after I have submitted a proxy or provided proxy instructions?

A: Edge stockholders of record, other than those Edge stockholders who are parties to support agreements, may change their vote at any time before their proxy is voted at the Edge special meeting in one of three ways. First, an Edge stockholder of record can send a written notice to the Secretary of Edge stating that it would like to revoke its proxy. Second, an Edge stockholder of record can submit new proxy instructions either on a new proxy card or via the Internet. Third, an Edge stockholder of record can attend the Edge special meeting and vote in person. Attendance alone will not revoke a proxy. If an Edge stockholder of record or a stockholder who owns Edge shares in street name has instructed a broker to vote its shares of Edge common stock, the stockholder must follow directions received from its broker to change those instructions.

Q: Who is paying for this proxy solicitation?

A: Edge and PDS will share equally the costs of printing and filing this proxy statement/prospectus/information statement and proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Edge common stock for the forwarding of solicitation materials to the beneficial owners of Edge common stock. Edge and PDS will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Edge has engaged D.F. King & Co., Inc. to assist in the solicitation of proxies and provide related advice and informational support, for a service fee, plus customary disbursements, which are not expected to exceed \$15,000 in total, which shall be borne by Edge.

Q: Who can help answer my questions?

A: If you are an Edge stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact Edge's proxy solicitor:

D.F. King & Co., Inc.
(800) 967-5074 (toll free)
(212) 269-5550 (collect)

If you are a PDS stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact:

PDS Biotechnology Corporation
303B College Road East
Princeton, New Jersey 08540
Attention: Chief Executive Officer

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PROSPECTUS SUMMARY

*This summary highlights selected information from this proxy statement/prospectus/information statement and may not contain all of the information that is important to you. To better understand the merger, the proposals being considered at the Edge special meeting and the PDS stockholder actions that are the subject of the written consent, you should read this entire proxy statement/prospectus/information statement carefully, including the Merger Agreement and the other annexes to which you are referred to herein. For more information, please see the section titled *Where You Can Find More Information*.*

The Parties

Edge Therapeutics, Inc.

300 Connell Drive, Suite 4000
Berkeley Heights, NJ 07922
(800) 208-3343

Edge Therapeutics, Inc., or Edge, is a clinical-stage biotechnology company that seeks to discover, develop and commercialize novel, hospital-based therapies capable of transforming treatment paradigms for the management of acute, life-threatening conditions.

PDS Biotechnology Corporation

303B College Road East
Princeton, New Jersey 08540
(609) 423-1450

PDS Biotechnology Corporation, or PDS, is a private company with a growing pipeline of clinical-stage immunotherapies to treat various early-stage and late-stage cancers, including head and neck cancer, cervical cancer, anal cancer, prostate cancer, breast cancer and other cancers.

Echos Merger Sub, Inc.

300 Connell Drive, Suite 4000
Berkeley Heights, NJ 07922
(800) 208-3343

Echos Merger Sub, Inc., or Merger Sub, is a wholly-owned subsidiary of Edge and was formed solely for the purposes of carrying out the merger.

The Merger

If the merger is consummated, Merger Sub will merge with and into PDS, with PDS surviving the merger as a wholly-owned subsidiary of the combined company.

Subject to the terms and conditions of the Merger Agreement, at the effective time of the merger, or the Effective Time, (a) each outstanding share of capital stock of PDS (other than any shares held as treasury stock that will be cancelled) will be converted into the right to receive 6.5366, or the Exchange Ratio of Edge Common Stock, plus any cash paid in lieu of fractional shares; (b) each outstanding PDS warrant that is not exercised prior to the Effective

Time will be assumed by Edge, *provided, however*, that from and after the Effective Time, the PDS warrants will be exercisable into that number of shares of common stock of the Edge equal to (i) the Exchange Ratio multiplied by (ii) the number of shares of common stock of PDS into which such PDS warrant is exercisable as of immediately prior to the effective time, at an exercise price per share equal to (A) the exercise price per share of PDS common stock under the existing warrant divided by (B) the Exchange Ratio; and (c) each PDS stock option will fully vest and be assumed by Edge and converted into an option to purchase, on the same terms and conditions, a number of shares of Edge common stock equal to the product of (i) the number of shares of PDS common stock subject to such option, multiplied by (ii) the Exchange Ratio, at an exercise price per share of Edge common stock equal to (A) the exercise price per share of the PDS common stock subject to such option divided by (B) the Exchange Ratio. Prior to the closing, the Edge Board shall adopt resolutions to provide that (i) each unexpired and unexercised Edge option, whether vested or unvested, shall be accelerated in full, with each unexercised Edge option remaining outstanding immediately after the Effective

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Time in accordance with its terms and (ii) each outstanding and unvested Edge restricted stock unit, or Edge RSU, shall be accelerated in full effective as of immediately prior to the Effective Time and settled within five days after the Effective Time (with settlement to be one share of Edge common stock for each share of Edge common stock underlying such Edge RSU). The Exchange Ratio is an estimate only and the final Exchange Ratio will be determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement.

Under the Exchange Ratio formula in the Merger Agreement, as of immediately after the merger and assuming no adjustments for cash balances as provided for in the Merger Agreement, the former PDS securityholders are expected to own approximately 70% of the Post-Closing Shares, and the securityholders of Edge as of immediately prior to the merger are expected to own approximately 30% of the aggregate number of Post-Closing Shares. This Exchange Ratio will be fixed prior to closing to reflect Edge's and PDS's capitalization as of immediately prior to such time. These percentages assume that the Exchange Ratio is not adjusted for net cash balances or otherwise, as described in the section titled "The Merger Agreement-Merger Consideration" below. For a more complete description of the Exchange Ratio please see the section titled "The Merger Agreement-Exchange Ratio" in this proxy statement/prospectus/information statement.

The closing of the merger will occur no later than the second business day after the last of the conditions to the merger has been satisfied or waived, or at another time as Edge and PDS agree. Edge and PDS anticipate that the closing of the merger will occur promptly after the Edge special meeting. However, because the merger is subject to a number of conditions, neither Edge nor PDS can predict exactly when the closing will occur or if it will occur at all. After the closing of the merger, the name of the combined company will be changed from Edge Therapeutics, Inc. to PDS Biotechnology Corporation.

Reasons for the Merger

On April 30, 2018, Edge announced that it was exploring strategic alternatives that included an acquisition of another company, acquisitions or in-licensing of products or product candidates, technologies or other assets, the sale of all or substantially all of the assets of Edge, a sale of stock, a strategic merger or other business combination transactions or other transactions between Edge and a third party. Edge retained Piper Jaffray & Co., or Piper Jaffray, to serve as its financial advisor in certain aspects of the process. After a comprehensive review of strategic alternatives, on November 26, 2018, Edge announced the signing of a definitive merger agreement with PDS. Following the merger, the combined company will focus on developing PDS's growing pipeline of next-generation cancer immunotherapies based on the proprietary, multi-functional Versamune® technology platform, the development of PDS0101 for the treatment of multiple human papilloma virus (HPV)-induced cancers, including cervical, anal and head and neck cancers, and multiple preclinical programs developing Versamune®-based cancer immunotherapies in combination with checkpoint inhibitors for various late-stage cancers.

In reaching its unanimous decision (other than Brian Leuthner, who recused himself from the Edge Board vote) to approve the Merger Agreement and the transactions contemplated thereby, the Edge Board considered a number of factors, including, among others, the following:

- the historical and current information concerning Edge's business, financial performance, financial condition, operations, management and competitive position, the prospects of Edge and its product candidates, the nature of the biotechnology industry generally, including financial projections of Edge under various scenarios and its short- and long-term strategic objectives;
- that PDS's proprietary platform, as well as its immunotherapies pipeline, which includes clinical stage candidates that may address sizeable market opportunities, provide new medical benefits for patients and returns for investors;

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- that the merger would provide existing Edge stockholders a significant opportunity to participate in the potential growth of the combined company following the merger;
- that the combined company is expected to be led by an experienced senior management team and a board of directors with representation from each of the current boards of directors of Edge and PDS;
- that the Phase 3, NEWTON 2 study of EG-1962 demonstrated a low probability of achieving a statistically-significant difference compared to the standard of care in the study's primary endpoint and the resulting discontinuation of the NEWTON 2 study; and

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- the terms of the Merger Agreement and associated transactions, including the relative percentage ownership of Edge securityholders and PDS securityholders immediately following the closing of the merger, the reasonableness of the fees and expenses related to the merger and the likelihood that the merger will be completed.

For more information on the Edge Board's reasons for the transaction, see the section titled "The Merger—Edge Reasons for the Merger."

In reaching its unanimous decision to approve the Merger Agreement and the related transactions, the PDS Board considered a number of factors, including, among others, the following:

- the potential increased access to sources of capital at a lower cost and a broader range of investors to support PDS's commercialization efforts than it could otherwise obtain if it continued to operate as a privately held company;
- the ability to access institutional investors who may otherwise be unable to invest in a privately-held company;
- the potential to provide its current stockholders with greater liquidity by owning stock in a public company;
- the PDS board of director's belief that no alternatives to the merger were reasonably likely to create greater value for the PDS stockholders after reviewing the various strategic options to enhance stockholder value that were considered by the PDS Board;
- the expectation that the merger with Edge would be a more time- and cost-effective means to access capital than other options considered;
- the cash resources of the combined company expected to be available at the closing of the merger, including Edge's cash balance of \$36.8 million as of September 30, 2018;
- the fact that shares of Edge common stock issued to PDS stockholders will be registered on a Form S-4 registration statement by Edge and will become freely tradable;
- the belief that increased visibility as a public company would provide access to additional strategic partnering transactions; and
- the expectation that the merger will be treated as a reorganization for U.S. federal income tax purposes, with the result that the PDS stockholders will not recognize taxable gain or loss for U.S. federal income tax purposes upon the exchange of PDS common stock for Edge common stock pursuant to the merger.

For more information on the PDS Board's reasons for the transaction, see the section titled "The Merger—PDS Reasons for the Merger."

Opinion of the Financial Advisor to the Edge Board

The Edge Board engaged Piper Jaffray to provide financial advisory and investment banking services in connection with the Edge Board's consideration and evaluation of certain potential strategic alternatives. On November 23, 2018, Piper Jaffray rendered its oral opinion to the Edge Board (which was subsequently confirmed in writing by delivery of Piper Jaffray's written opinion dated November 23, 2018) to the effect that, as of November 23, 2018, and based upon and subject to the various assumptions and limitations set forth therein, the Exchange Ratio was fair, from a financial point of view, to Edge.

Piper Jaffray's opinion was directed to the Edge Board, and only addressed the fairness, from a financial point of view, to Edge of the Exchange Ratio and did not address any other aspect or implication of the merger. The summary of Piper Jaffray's opinion in this proxy statement/prospectus/information statement is qualified in its entirety by reference to the full text of its written opinion, which is included as *Annex D* to this proxy statement/prospectus/information statement and sets forth the assumptions made, procedures followed, matters considered and limitations on the scope of the review undertaken by Piper Jaffray in preparing its opinion. However, neither Piper Jaffray's written opinion nor the summary of its

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opinion and the related analyses set forth in this proxy statement/prospectus/information statement is intended to be, and they do not constitute, a recommendation to any Edge stockholder as to how such stockholder should act or vote with respect to the merger or any other matter.

See *Annex D* and the section of this proxy statement/prospectus/information statement entitled *The Merger—Opinion of the Financial Advisor to the Edge Board*.

Overview of the Merger Agreement and Agreements Related to the Merger Agreement

Merger Consideration

At the closing of the merger:

- each outstanding share of capital stock of PDS (other than any shares held as treasury stock that will be cancelled) will be converted into the right to receive approximately 6.5366 shares of Edge common stock, plus any cash paid in lieu of fractional shares, subject to adjustment for any reverse stock split;
- each outstanding PDS warrant that is not exercised will be assumed by Edge, *provided, however*, that from and after the Effective Time, the PDS warrants will be exercisable into that number of shares of common stock of the Parent equal to (i) the Exchange Ratio multiplied by (ii) the number of shares of common stock of PDS into which such PDS warrant is exercisable as of immediately prior to the effective time, at an exercise price per share equal to (A) the exercise price per share of PDS common stock under the existing warrant divided by (B) the Exchange Ratio; and
- each PDS stock option will fully vest and be assumed by Edge and converted into an option to purchase, on the same terms and conditions, a number of shares of Edge common stock equal to the product of (i) the number of shares of PDS common stock subject to such option, multiplied by (ii) the Exchange Ratio, at an exercise price per share of Edge common stock equal to (A) the exercise price per share of the PDS common stock subject to such option divided by (B) the Exchange Ratio.

Immediately after the merger, based on the Exchange Ratio, PDS securityholders will own approximately 70% of the outstanding capital stock of the combined company, and Edge securityholders will own approximately 30% of the outstanding capital stock of the combined company. The Exchange Ratio is an estimate only and the final Exchange Ratio will be determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement. Adjustments to the Exchange Ratio are described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement.

The Merger Agreement does not include a price-based termination right. Accordingly, the market value of the shares of Edge common stock issued pursuant to the Merger Agreement will depend on the market value of the shares of Edge common stock at the time the merger closes and could vary significantly from the market value on the date of this proxy statement/prospectus/information statement. On February 8, 2019, the latest practicable date before the printing of this proxy statement/prospectus/information statement, the closing sale price of Edge common stock was \$0.43 per share.

Treatment of Edge Stock Options and Edge RSUs

Prior to the closing, the Edge Board will adopt resolutions to provide that (i) each unexpired and unexercised Edge option, whether vested or unvested, shall be accelerated in full, with each unexercised Edge option remaining outstanding immediately after the effective time of the merger in accordance with its terms and (ii) each outstanding and unvested Edge RSU, shall be accelerated in full effective as of immediately prior to the Effective Time and settled within five days after the Effective Time (with settlement to be one share of Edge common stock for each share of Edge common stock underlying such Edge RSU). The number of shares of Edge common stock underlying such

options and Edge RSUs and the exercise prices for such options will be appropriately adjusted to reflect Edge's proposed reverse stock split, if consummated. The terms governing options to purchase shares of Edge common stock will otherwise remain in full force and effect following the closing of the merger.

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Treatment of PDS Stock Options and Warrants

Stock Options

At the effective time of the merger, each PDS option will fully vest and will be assumed by Edge and converted into an option to purchase, on the same terms and conditions, a number of shares of Edge common stock equal to the product of (a) the number of shares of PDS common stock subject to such option, multiplied by (b) the Exchange Ratio, at an exercise price per share of Edge common stock equal to (i) the exercise price per share of the PDS common stock subject to such option divided by (ii) the Exchange Ratio.

Warrants

At the effective time of the merger, each PDS warrant that is not exercised prior to the effective time shall be assumed by Edge, *provided, however*, that from and after the effective time, such PDS warrants shall be exercisable into that number of shares of common stock of Edge equal to (a) the Exchange Ratio multiplied by (b) the number of shares of common stock of PDS into which such PDS warrant is exercisable as of immediately prior to the effective time, at an exercise price per share equal to (i) the exercise price per share of the common stock of PDS under the existing PDS warrant divided by (ii) the Exchange Ratio.

Permitted Bridge Financing

After the date of the Merger Agreement but prior to the effective time of the merger, PDS may issue, in a single transaction or a series of transactions, or a Permitted Bridge Financing, (a) shares of the common stock of PDS, in which event such shares shall be included in the calculation of the outstanding shares of PDS used to calculate the Exchange Ratio, or PDS Outstanding Shares, (b) PDS warrants, in which event the PDS warrants shall be included in the calculation of PDS Outstanding Shares to the extent provided in such definition and/or (c) convertible promissory notes, which promissory notes shall convert into either shares of (i) common stock of PDS prior to the closing, in which case such shares shall be included in the calculation of PDS Outstanding Shares or (ii) common stock of PDS immediately after the closing, in which case such shares shall be deducted from the calculation of the shares issued to the stockholders of PDS at the closing. In no event shall the aggregate proceeds of the Permitted Bridge Financing exceed \$3,000,000 without the prior written consent of Edge.

Conditions to the Closing of the Merger

To consummate the merger, a majority of shares of Edge common stock present in person or represented by proxy at a stockholder meeting at which a quorum is present must approve the issuance of shares of Edge common stock pursuant to the Merger Agreement.

The PDS stockholders holding a majority of shares of common stock (voting as a single class) must approve and adopt the Merger Agreement and the transactions contemplated thereby, including the merger.

In addition to obtaining such stockholder approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

Non-Solicitation

Each of Edge and PDS have agreed that, subject to certain exceptions, neither they nor any of their respective subsidiaries will authorize or permit any of their or their subsidiaries' directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors and representatives to, directly or indirectly:

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- solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of, any acquisition proposal or acquisition inquiry, each as defined in the Merger Agreement and as defined in the section titled "The Merger Agreement—Non-Solicitation" below;
- furnish any non-public information with respect to it to any person in connection with or in response to an acquisition proposal or an acquisition inquiry;
- engage in discussions or negotiations with any person with respect to any acquisition proposal or acquisition inquiry;
- subject to certain exceptions, approve, endorse or recommend an acquisition proposal;

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- execute or enter into any letter of intent or any contract contemplating or otherwise relating to any acquisition transaction, as defined in the Merger Agreement and as defined in the section titled "The Merger Agreement-Non-Solicitation" below; or
- publicly propose to do any of the above.

However, before obtaining the Edge stockholder approval required to consummate the merger, Edge may furnish nonpublic information regarding such party to, and may enter into discussions or negotiations with, any person in response to a bona fide written acquisition proposal, which the Edge Board determines in good faith, after consultation with Edge's financial advisor and outside legal counsel, constitutes or is reasonably likely to result in a superior offer, as defined in the Merger Agreement and as defined in the section titled "The Merger Agreement—Non-Solicitation" below, and is not withdrawn, if:

- neither Edge nor any of its directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors and representatives has breached the non-solicitation provisions of the Merger Agreement described above;
- the Edge Board concludes in good faith based on the advice of outside legal counsel, that the failure to take such action is reasonably likely to be inconsistent with the fiduciary duties of the Edge Board under applicable law;
- Edge receives from the third-party an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions and no hire provisions) at least as favorable to such party as those contained in the confidentiality agreement between Edge and PDS; and
- substantially contemporaneously with furnishing of nonpublic information to a third-party, Edge furnishes the same information to the other party to the extent not previously furnished.

If either Edge or PDS receives an acquisition proposal or acquisition inquiry at any time during the period between November 23, 2018, and earlier to occur of (a) the Effective Time and (b) termination of the Merger Agreement, then such party must promptly, and in no event later than one business day after becoming aware of such acquisition proposal or acquisition inquiry, advise the other party orally and in writing of such acquisition proposal or acquisition inquiry, including the identity of the person making or submitting the acquisition proposal or acquisition inquiry and the material terms thereof. Each of Edge and PDS must keep the other reasonably informed with respect to the status and material terms of any such acquisition proposal or acquisition inquiry and any material modification or proposed material modification thereto.

Termination of the Merger Agreement

Either Edge or PDS can terminate the Merger Agreement under certain circumstances, which would prevent the merger from being consummated.

Termination Fees

If the Merger Agreement is terminated under certain circumstances and certain other events occur, Edge will be required to pay PDS a termination fee of \$1.75 million. Moreover, if Edge fails to pay any termination fee when due, then it will be required to pay interest on and reasonable fees and expenses incurred in connection with the collection of such overdue amount in addition to the \$1.75 million termination fee.

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Support Agreements and Written Consent

PDS

Certain PDS stockholders are party to a support agreement with Edge, Echos Merger Sub and PDS pursuant to which, among other things, each such stockholder agreed, solely in his, her or its capacity as a PDS stockholder, to vote all of his, her or its shares of PDS common stock in favor of the adoption and approval of the Merger Agreement and the transactions contemplated thereby and to acknowledge that the adoption and approval of the Merger Agreement is irrevocable. In addition, these PDS stockholders agreed not to, directly or indirectly, knowingly take any action that PDS is not permitted to take under the non-solicitation provisions of the Merger Agreement. Concurrently with the execution and delivery of the Merger Agreement and as a condition and inducement for PDS to enter into the Merger Agreement, the following individuals entered into support agreements with Edge, Echos Merger Sub and PDS:

- Frank Bedu-Addo
- Asklepios Capital LLC
- Indiana 21st Century Fund, L.P.
- NetScientific plc
- DeLyle Bloomquist
- Sir Richard Sykes
- Ian Postlethwaite
- Gregory Freitag
- Gregory Conn, Ph.D.
- Michael King, MBA

The stockholders of PDS that are party to a support agreement with Edge consist of the holders of a majority of the shares of PDS common stock and each outstanding on the record date and entitled to vote thereon (voting as a single class).

Therefore, holders of the number of shares of PDS common stock required to approve and adopt the Merger Agreement and approve the merger and related transactions are contractually obligated to approve and adopt the Merger Agreement. Following the effectiveness of the registration statement of which this proxy statement/prospectus/information statement is a part and pursuant to the Merger Agreement, stockholders of PDS holding a sufficient number of shares to approve and adopt the Merger Agreement and thereby approve the merger and related transactions will execute written consents providing for such adoption and approval.

Edge

Certain Edge stockholders are party to a support agreement with Edge, Echos Merger Sub and PDS pursuant to which, among other things, each of such stockholders agreed, solely in his or her capacity as a stockholder, to vote all of his or her shares of Edge common stock in favor of the approval of the issuance of shares of Edge common stock pursuant to the Merger Agreement and the reverse stock split of Edge common stock. In addition, these Edge stockholders agreed not to, directly or indirectly, knowingly take any action that Edge is not permitted to take under the non-solicitation provisions of the Merger Agreement. Concurrently with the execution and delivery of the Merger Agreement and as a condition and inducement for Edge to enter into the Merger Agreement, the following individuals entered into support agreements with Edge, Echos Merger Sub and PDS:

- Brian A. Leuthner
- Andrew Saik
- Herbert J. Faleck, D.O.
- W. Bradford Middlekauff

- Alyssa J.S. Wyant
- Sol Barer, Ph.D.

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- Liam Ratcliffe, M.D., Ph.D.
- Robert Spiegel, M.D.
- R. Loch Macdonald, M.D., Ph.D.
- Isaac Blech
- Rosemary Crane
- James Loughlin

The stockholders of Edge that are party to a support agreement with Edge, Echos Merger Sub and PDS consist of the holders of an aggregate of 4,225,198 shares of Edge common stock, representing 13.4% of the outstanding shares of Edge common stock as of December 31, 2018. These stockholders are solely comprised of the current and former executive officers and directors of Edge in their individual capacities.

Lock-up Agreements

PDS

As a condition to the closing of the merger, PDS’s directors, executive officers and principal stockholders, who will beneficially hold 82% of the combined company’s capital stock immediately following the closing of the merger, have entered into lock-up agreements, pursuant to which such parties have agreed not to, except in limited circumstances, transfer, grant an option with respect to, sell, exchange, pledge or otherwise dispose of, or encumber any shares of PDS common stock prior to the closing of the merger, and the combined company’s common stock thereafter, for 180 days following the Effective Time in the case of directors and officers continuing with the combined company, and 90 days in the case of directors and officers who will not remain with the combined company.

Edge

As a condition to the closing of the merger, Edge’s directors and officers have entered into lock-up agreements, pursuant to which such parties will agree not to, except in limited circumstances, transfer, grant an option with respect to, sell, exchange, pledge or otherwise dispose of, or encumber any shares of Edge’s capital stock prior to the closing of the merger, and the combined company’s common stock thereafter, for 180 days following the Effective Time.

Management Following the Merger

Effective as of the closing of the merger, the combined company’s executive officers are expected to be composed of members of the following current Edge and PDS management teams:

Name	Position(s)
Frank Bedu-Addo, Ph.D.	Chief Executive Officer, Director
Gregory Conn, Ph.D.	Chief Scientific Officer
Andrew Saik	Chief Financial Officer, Director
Lauren Wood, M.D.	Chief Medical Officer
W. Bradford Middlekauff	Senior Vice President, General Counsel and Secretary

On February 3, 2019, Brian A. Leuthner, Edge's Chief Executive Officer, agreed to resign as Chief Executive Officer of Edge and as a director on the Edge Board, effective as of the closing of the merger.

Transition Services Agreement

Edge and PDS may enter into a transition services agreement, pursuant to which Edge may provide PDS with certain clinical and manufacturing consulting services prior to the expected closing of the merger. Edge and PDS expect that, if such an agreement is reached, it will be on arm's-length terms, subject to mutual agreement of the parties on the scope of consulting services and the related terms of any agreement.

TABLE OF CONTENTS**The Edge Special Meeting**

The special meeting of stockholders of Edge will be held on March 14, 2019 at 9:00 a.m., local time, at 300 Connell Drive, Suite 4000 Berkeley Heights, NJ 07922, for the following purposes:

- to consider and vote upon a proposal to approve the issuance of shares of Edge common stock in connection with merger, or the Stock Issuance Proposal;
- to consider and vote upon the amendment to the certificate of incorporation of Edge to effect a reverse stock split of Edge common stock, at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS or, if the Stock Issuance Proposal is not approved by Edge stockholders, determined solely by the Edge Board following the special meeting, or the Reverse Stock Split Proposal; and
- to transact such other business as may properly come before the Edge special meeting or any adjournment or postponement thereof.

Collectively the proposal above are referred to as the Edge Proposals. On each matter to be voted upon, stockholders have one vote for each share of Edge common stock owned as of January 30, 2019. Votes will be counted by the inspector of election. The following table summarizes vote requirements and the effect of abstentions and broker non-votes.

Proposal Number	Proposal Description	Vote Required for Approval	Effect of Abstentions	Effect of Broker Non-Votes
1	Stock Issuance Proposal	FOR votes from the holders of a majority of shares properly cast at a meeting at which a quorum is present	Against	None
2	Reverse Stock Split Proposal	FOR votes from the holders of a majority of outstanding shares	Against	Against
3	Equity Incentive Plan Proposal	FOR votes from the holders of a majority of shares properly cast at a meeting at which a quorum is present	Against	None

Except as stated below, no Edge Proposal is contingent upon any other Edge Proposal. Therefore, assuming all other closing conditions have been either satisfied or waived, the merger will be consummated even if the Reverse Stock Split Proposal is not approved by Edge's stockholders. However, if Edge's stockholders do not approve the Reverse Stock Split Proposal to effect the reverse stock split upon the closing of the merger, Edge has been advised that The Nasdaq Global Select Market will commence delisting proceedings immediately following the closing of the merger. If the Stock Issuance Proposal is not approved but the Reverse Stock Approval is approved, the Edge Board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 as determined solely by the Edge Board in order to satisfy Edge's continued listing requirements on The Nasdaq Global Select Market. However, if the Merger is not consummated, the Equity Incentive Plan Proposal will be automatically withdrawn.

PDS Solicitation of Written Consents

The adoption of the Merger Agreement and the approval of the merger and related transactions by the PDS stockholders requires the affirmative votes of the holders of a majority of the shares of PDS common stock (voting as

a single class).

Following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the SEC and pursuant to the conditions of the Merger Agreement, the PDS stockholders who are party to the support agreements have agreed to execute an action by written consent adopting the Merger Agreement, thereby approving the merger and related transactions. These stockholders own a sufficient number of shares of PDS common stock to adopt the Merger Agreement.

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No meeting of PDS stockholders to adopt the Merger Agreement and approve the merger and related transactions will be held; *however*, all PDS stockholders will have the opportunity to elect to adopt the Merger Agreement, thereby approving the merger and related transactions, by signing and returning to PDS a written consent.

In addition to the requirement of obtaining such stockholder approval and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

Interests of Directors and Executive Officers of Edge and PDS

Interests of the Edge Directors and Executive Officers in the Merger

In considering the recommendation of the Edge Board with respect to issuing shares of Edge common stock pursuant to the Merger Agreement and the other matters to be acted upon by Edge stockholders at the Edge special meeting, Edge stockholders should be aware that certain members of the Edge Board and executive officers of Edge have interests in the merger that may be different from, or in addition to, interests they have as Edge stockholders.

Pursuant to the terms of their employment agreements, the Edge executive officers would be entitled to receive a total of approximately \$2.0 million in cash severance benefits (collectively, not individually) in the event that their employment with Edge is terminated without cause or for good reason based on data available as of the date of this proxy statement/prospectus/information statement. Additionally, all outstanding equity awards held by Edge's executive officers will accelerate fully and vest upon the closing of the merger. As of the date of this proxy statement/prospectus/information statement, Edge's executive officers hold Edge RSUs totaling 301,797 shares of Edge common stock and held stock options to purchase an aggregate of 2,645,711 shares of Edge common stock with a weighted average exercise price of \$7.15 per share (all of which are out of the money based on the closing price of Edge common stock as of February 8, 2019) and Edge RSUs covering 301,797 shares of Edge common stock (which, based on the closing price of Edge common stock as of February 8, 2019, had an aggregate value of \$129,773).

With respect to Edge's directors, Edge's non-employee directors hold Edge RSUs totaling 80,000 shares of Edge common stock and stock options to purchase an aggregate of 2,546,089 shares of Edge common stock with a weighted average exercise price of \$4.72 per share as part of Edge's non-employee director compensation program. These stock options will by their terms vest in full upon the closing of the merger, including Edge RSUs of 20,000 shares of Edge common stock and stock options for 220,607 and 64,286 shares of Edge common stock held by Robert J. Spiegel, M.D., Ph.D. and James Loughlin, respectively, each of whom is expected to remain on the combined company's board of directors. Each of Dr. Barer, Ms. Crane and Dr. Spiegel, the members of the transactions committee, will receive \$10,000 for their service on such committee.

As of December 31, 2018, directors and executive officers of Edge owned approximately 13.1% of the outstanding shares of Edge common stock. All Edge executive officers and directors have entered into support agreements in connection with the merger. The support agreements are discussed in greater detail in the section titled "Agreements Related to the Merger-Support Agreements and Written Consent" in this proxy statement/prospectus/information statement.

Interests of the PDS Directors and Executive Officers in the Merger

In considering the recommendation of the PDS Board with respect to approving the merger and related transactions by written consent, PDS stockholders should be aware that certain members of the board of directors and executive officers of PDS have interests in the merger that may be different from, or in addition to, interests they have as PDS stockholders. For example, some of PDS's directors and executive officers are expected to become directors and executive officers of the combined company upon the closing of the merger. Specifically, Frank Bedu-Addo, Ph.D.,

the current Chief Executive Officer of PDS, is expected to become the Chief Executive Officer of the combined company upon the closing of the merger. Additionally, Frank Bedu-Addo, Ph.D., Sir Richard Sykes, De Lyle W. Bloomquist and Gregory Freitag, J.D., CPA, who are current directors of PDS, will be designated to serve on the combined company's board of directors following the closing of the merger.

All PDS executive officers, directors and their affiliates have entered into support agreements in connection with the merger. The support agreements are discussed in greater detail in the section titled "Agreements Related to the Merger-Support Agreements and Written Consent" in this proxy statement/prospectus/information statement.

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Certain PDS executive officers, directors and their affiliates currently hold shares of PDS common stock, stock options to purchase shares of common stock and unsecured promissory notes. In addition, in October 2018, the PDS Board agreed to grant each of Dr. Conn and Mr. King 137,559 stock options, and Dr. Bedu-Addo 550,235 stock options, immediately prior to the consummation of the merger.

As of February 8, 2019, all directors and executive officers of PDS, together with their affiliates, owned 61.5% of the outstanding shares of PDS common stock (on an as-converted to common stock basis) and such persons held stock options to purchase an aggregate of 2,343,801 shares of common stock with a weighted average exercise price of \$3.25 per share.

The PDS Board was aware of these interests and considered them, among other matters, in its decision to approve the Merger Agreement. For more information, please see the sections titled *The Merger—Interests of the PDS Directors and Executive Officers in the Merger* and *Certain Relationships and Related-Party Transactions—PDS*.

Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger

Each of Edge and PDS intends that the merger qualify as a reorganization within the meaning of Section 368(a) of the Code. In general and subject to the qualifications and limitations set forth in the section titled *The Merger—Certain Material U.S. Federal Income Tax Consequences of the Merger*, the material tax consequences to U.S. Holders (as defined herein) of PDS common stock are expected to be as follows:

- a PDS stockholder should not recognize gain or loss upon the exchange of PDS common stock for Edge common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Edge common stock as described below;
- a PDS stockholder who receives cash in lieu of a fractional share of Edge common stock in the merger should recognize capital gain or loss in an amount equal to the difference between the amount of cash received instead of a fractional share and the stockholder's tax basis allocable to such fractional share;
- a PDS stockholder's aggregate tax basis for the shares of Edge common stock received in the merger (including any fractional share interest for which cash is received) should equal the stockholder's aggregate tax basis in the shares of PDS common stock surrendered upon the closing of the merger, decreased by the amount of any tax basis allocable to a fractional share for which cash is received; and
- the holding period of the shares of Edge common stock received by a PDS stockholder in the merger should include the holding period of the shares of PDS common stock surrendered in exchange therefor provided the surrendered PDS common stock is held as a capital asset (generally, property held for investment) at the time of the merger.

Tax matters are very complicated, and the tax consequences of the merger to a particular PDS stockholder will depend on such stockholder's circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of federal, state, local and foreign income and other tax laws. For more information, please see the section titled *The Merger—Certain Material U.S. Federal Income Tax Consequences of the Merger*.

Risk Factors

Both Edge and PDS are subject to various risks associated with their businesses and their industries. In addition, the merger, including the possibility that the merger may not be completed, poses a number of risks to each company and its respective stockholders, including the following risks:

- the Exchange Ratio is not adjustable based on the market price of Edge common stock so the merger consideration at the closing may have a greater or lesser value than at the time the Merger Agreement was

signed;

- failure to complete the merger may result in Edge paying a termination fee or expenses to PDS and could harm the common stock price of Edge and future business and operations of each company;
- the merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes and other causes;

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- the combined company may need to raise additional capital by issuing securities or debt or through licensing arrangements, which may cause significant dilution to the combined company's stockholders or restrict the combined company's operations or proprietary rights;
- certain Edge and PDS executive officers and directors have interests in the merger that are different from yours and that may influence them to support or approve the merger without regard to your interests;
- the market price of the combined company's common stock may decline as a result of the merger;
- Edge and PDS stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger;
- during the pendency merger, Edge and PDS may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses;
- certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement;
- the lack of a public market for PDS shares makes it difficult to determine the fair market value of the PDS shares, and the stockholders of PDS may receive consideration in the merger that is less than the fair market value of the PDS shares and/or Edge may pay more than the fair market value of the PDS shares; and
- if the conditions of the merger are not met, the merger will not occur.

These risks and other risks are discussed in greater detail under the section titled Risk Factors. Edge and PDS both encourage you to read and consider all of these risks carefully.

Regulatory Approvals

In the United States, Edge must comply with applicable federal and state securities laws and the rules and regulations of The Nasdaq Stock Market LLC in connection with the issuance of shares of Edge common stock pursuant to the Merger Agreement and the filing of this proxy statement/prospectus/information statement with the SEC.

Nasdaq Stock Market Listing

Edge intends to file an initial listing application for the combined company with The Nasdaq Capital Market pursuant to its reverse merger rules. However, if Edge's stockholders do not approve the Reverse Stock Split Proposal, Edge has been advised that The Nasdaq Stock Market LLC will commence delisting proceedings immediately following the closing of the merger. The combined company is obligated to use commercially reasonable efforts to take such steps as necessary to ensure the continued listing of its common stock on The Nasdaq Capital Market following the closing of the merger. It is expected that the combined company's common stock will trade under the symbol PDSB.

If the issuance of the shares of Edge common stock pursuant to the Merger Agreement is not approved but the reverse stock split proposal is, the Edge Board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 as determined solely by the Edge Board in order to satisfy Edge's continued listing requirements on The Nasdaq Global Select Market.

Anticipated Accounting Treatment

The merger will be treated by Edge as a reverse merger under the acquisition method of accounting in accordance with accounting principles generally accepted in the United States. For accounting purposes, PDS is considered to be acquiring Edge in the merger.

Appraisal Rights and Dissenters' Rights

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Holders of shares of Edge capital stock are not entitled to appraisal rights in connection with the merger. PDS stockholders are entitled to appraisal rights in connection with the merger under Delaware law. For more

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information about such rights, see the provisions of Section 262 of the Delaware General Corporation Law, or the DGCL, attached hereto as *Annex E*, and the section titled *The Merger—Appraisal Rights and Dissenters' Rights*.

Potential PDS Financing

Although there is no current agreement in place with any potential financing source, nor any requirement to undertake a financing, under the Merger Agreement, after February 28, 2019 but prior to the Effective Time of the merger, PDS may issue, in a single transaction or a series of transactions, (a) shares of the common stock of PDS, (b) PDS warrants and/or (c) convertible promissory notes, which promissory notes shall convert into either shares of (i) common stock of PDS prior to the closing or (ii) common stock of Edge immediately after the closing. In no event shall the aggregate proceeds of the Permitted Bridge Financing exceed \$3,000,000 without the prior written consent of Edge, not to be unreasonably withheld, conditioned or delayed. To the extent any such potential financing is consummated consistent with the foregoing, the issuance of shares would be dilutive to both Edge and PDS stockholders, after giving effect to the Exchange Ratio, and shares issued in connection with this financing would not be used in the calculation of the Exchange Ratio.

Comparison of Stockholder Rights

Both Edge and PDS are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the merger is completed, PDS stockholders will become stockholders of Edge, and their rights will be governed by the DGCL, the bylaws of Edge and, the certificate of incorporation of Edge. The rights of Edge stockholders contained in the certificate of incorporation and bylaws of Edge differ from the rights of PDS stockholders under the certificate of incorporation and bylaws of PDS, as more fully described under the section titled *Comparison of Rights of Holders of Edge Stock and PDS Stock*.

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CONDENSED COMBINED FINANCIAL INFORMATION AND DATA**

The following tables present summary historical financial data for Edge and PDS, summary unaudited pro forma condensed combined financial data for Edge and PDS, and comparative historical and unaudited pro forma per share data for Edge and PDS.

Selected Historical Condensed Financial Data of Edge

The selected condensed statements of operations data for the fiscal years ended December 31, 2017 and 2016 and the selected condensed balance sheet data as of December 31, 2017 and 2016 are derived from Edge's audited condensed financial statements included elsewhere in this proxy statement/prospectus/information statement. The selected condensed statements of operations data for the nine months ended September 30, 2018 and 2017 and the selected condensed balance sheet data as of September 30, 2018 are derived from Edge's unaudited condensed financial statements included elsewhere in this proxy statement/prospectus/information statement.

The selected historical condensed financial data below should be read in conjunction with the section titled "Edge Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors—Risks Related to Edge" and Edge's condensed financial statements and related notes included elsewhere in this proxy statement/prospectus/information statement. Edge's historical results are not necessarily indicative of the results that may be expected in any future period.

	Nine Months Ended September 30,		Years Ended December 31,	
	2018	2017	2017	2016
	(unaudited)			
Selected Condensed Statements of Operations Data (in 000's, except per share amounts):				
Total operating expenses	\$ 37,053.7	\$ 35,843.5	\$ 51,966.6	\$ 39,512.1
Net loss	\$ (37,782.9)	\$ (36,956.2)	\$ (50,859.8)	\$ (38,821.0)
Basic and diluted loss per common share	\$ (1.21)	\$ (1.23)	\$ (1.67)	\$ (1.34)
Shares used in calculation of net loss per share, basic and diluted	31,198,804	30,091,640	30,393,952	28,864,216
		As of September 30, 2018	As of December 31, 2017	2016
		(unaudited)		

Selected Condensed Balance Sheet Data (in 000's):

Cash, cash equivalents and investments	\$ 36,814.9	\$ 88,067.6	\$ 106,398.9
Total assets	\$ 37,673.1	\$ 92,621.1	\$ 110,914.4
Total liabilities	\$ 6,688.3	\$ 30,249.7	\$ 21,637.9
Total stockholders' equity	\$ 30,984.8	\$ 62,371.4	\$ 89,276.6

Selected Historical Financial Data of PDS Biotechnology Corporation

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The selected statements of operations data for the fiscal years ended December 31, 2017 and 2016 and the selected condensed balance sheet data as of December 31, 2017 and 2016 are derived from PDS's financial statements prepared using accounting principles generally accepted in the United States, which have been audited by an independent auditor, and are included in this proxy statement/prospectus/information statement. The statement of operations data for the nine months ended September 30, 2018 and 2017, as well as the balance sheet data as of September 30, 2018, are derived from PDS's unaudited condensed financial statements included elsewhere in this proxy statement/prospectus/information statement.

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The selected historical financial data should be read in conjunction with PDS's financial statements, related notes, other financial information, PDS Management's Discussion and Analysis of Financial Condition and Results of Operations and PDS's condensed financial statements and related notes appearing elsewhere in this proxy statement/prospectus/information statement. PDS's historical results are not necessarily indicative of results to be expected in any future period.

	Nine Months Ended September 30,		Years Ended December 31,	
	2018	2017	2017	2016
	(unaudited)			
Selected Condensed Statements of Operations Data (in 000's, except per share amounts):				
Total operating expenses	\$ 2,013.3	\$ 2,940.6	\$ 3,420.3	\$ 4,217.8
Net loss	\$ (2,016.9)	\$ (2,942.8)	\$ (3,423.2)	\$ (4,477.5)
Basic and diluted loss per common share	\$ (0.20)	\$ (0.32)	\$ (0.37)	\$ (0.54)
Shares used in calculation of net loss per share, basic and diluted	9,972,670	9,300,214	9,329,526	8,363,131
		As of September 30, 2018	As of December 31, 2017	As of December 31, 2016
		(unaudited)		

Selected Condensed Balance Sheet Data (in 000's):

Cash, cash equivalents and investments	\$ 142.7	\$ 175.9	\$ 1,957.0
Total assets	\$ 251.8	\$ 340.8	\$ 2,244.5
Total liabilities	\$ 1,330.5	\$ 950.3	\$ 722.8
Total stockholders' equity (deficit)	\$ (1,078.8)	\$ (609.5)	\$ 1,521.7

Selected Unaudited Pro Forma Condensed Combined Financial Data of Edge and PDS

The following information does not give effect to the proposed reverse stock split of Edge common stock described in the Reverse Stock Split Proposal.

The following unaudited pro forma condensed combined financial information was prepared using the acquisition method of accounting under U.S. GAAP, and gives effect to the transaction between Edge and PDS to be accounted for as a reverse acquisition, with PDS being deemed the acquiring company for accounting purposes.

The unaudited pro forma condensed combined balance sheet as of September 30, 2018 assumes that the transaction took place on September 30, 2018 and combines the historical balance sheets of Edge and PDS as of such date. The unaudited pro forma condensed combined statement of operations for the nine months ended September 30, 2018 and the year ended December 31, 2017 assumes that the transaction took place as of January 1, 2017, and combines the historical results of Edge and PDS for each period. The historical financial statements of Edge and PDS have been adjusted to give pro forma effect to events that are (i) directly attributable to the transaction, (ii) factually supportable, and (iii) with respect to the unaudited pro forma condensed combined statements of operations, expected to have a continuing impact on the combined results.

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The unaudited pro forma condensed combined financial information, including the notes thereto, should be read in conjunction with the separate Edge and PDS historical financial statements, and their respective management's discussion and analysis of financial condition and results of operations. PDS's historical audited financial statements for the years ended December 31, 2017 and 2016 and unaudited financial statements for the nine months ended September 30, 2018 and 2017 are included elsewhere in this proxy statement/prospectus/information statement. Edge's historical audited condensed financial statements for the years ended December 31, 2017 and December 31, 2016 and unaudited condensed financial statements for the nine months ended September 30, 2018 and 2017 are included elsewhere in this proxy statement/prospectus/information statement.

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	Nine Months Ended September 30, 2018	Year Ended December 31, 2017
Unaudited Pro Forma Condensed Combined Statements of Operations (in 000's, except per share amounts):		
Total operating expenses	\$ 35,599.5	\$ 55,386.9
Net loss	\$ (36,332.3)	\$ (54,283.0)
Basic and diluted net loss per common share	\$ (0.34)	\$ (0.52)
		As of September 30, 2018
Unaudited Pro Forma Condensed Combined Balance Sheet (in 000's):		
Cash, cash equivalents and investments		\$ 36,435.6
Total assets		\$ 38,402.9
Total liabilities		\$ 5,065.2
Stockholders' equity		\$ 33,337.7

Comparative Historical and Unaudited Pro Forma per Share Data

The information below reflects the historical net loss and book value per share of Edge common stock and the historical net loss and book value per share of PDS common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the proposed merger of Edge with PDS on a pro forma basis. The unaudited pro forma net loss and book value per share does not give effect to the proposed reverse stock split of Edge common stock described in the Reverse Stock Split Proposal.

You should read the tables below in conjunction with the audited condensed financial statements of Edge for the years ended December 31, 2017 and December 31, 2016 and unaudited condensed financial statements the nine months ended September 30, 2018 and 2017 included in this proxy statement/prospectus/information statement and the audited financial statements of PDS for the years ended December 31, 2017 and 2016 and unaudited financial statements for the nine months ended September 30, 2018 and 2017 included in this proxy statement/prospectus/information statement and the related notes and the unaudited pro forma condensed combined financial information and notes related to such financial statements included elsewhere in this proxy statement/prospectus/information statement.

	Nine Months Ended September 30, 2018	Year Ended December 31, 2017
Edge Historical Per Common Share Data:		
Basic and diluted net loss per share	\$ (1.21)	\$ (1.67)
Book value per share	\$ 0.99	\$ 2.05
PDS Historical Per Common Share Data:		
Basic and diluted net loss per share	\$ (0.20)	\$ (0.37)
Book value per share	\$ (0.11)	\$ (0.07)
Combined Company Per Common Share Data:		
Basic and diluted net loss per share	\$ (0.34)	\$ (0.52)
Book value per share	\$ 0.31	\$ N/A

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Edge common stock is listed on the Nasdaq Global Select Market under the symbol EDGE. The following table presents, for the periods indicated, the range of high and low per share closing sales prices for Edge common stock as reported on the Nasdaq Global Select Market for each of the periods set forth below. PDS is a private company and its common stock is not publicly traded. These per share sales prices do not give effect to the proposed reverse stock split of Edge common stock to be implemented, if approved by the Edge stockholders, prior to the closing of the merger.

Edge Common Stock

	High	Low
Year Ending December 31, 2019		
First Quarter (through February 8, 2019)	\$ 0.50	\$ 0.34
Year Ending December 31, 2018		
First Quarter	\$ 17.77	\$ 1.12
Second Quarter	1.41	0.84
Third Quarter	1.12	0.70
Fourth Quarter	1.09	0.31
Year Ended December 31, 2017		
First quarter	\$ 12.99	\$ 7.62
Second quarter	10.72	8.81
Third quarter	11.51	9.20
Fourth quarter	11.16	9.07
Year Ended December 31, 2016		
First quarter	\$ 13.86	\$ 6.70
Second quarter	10.64	7.43
Third quarter	12.29	8.61
Fourth quarter	13.50	9.25

On February 8, 2019, the last reported sale price of Edge common stock on the Nasdaq Global Select Market was \$0.43 per share.

Because the market price of Edge common stock is subject to fluctuation, the market value of the shares of Edge common stock that PDS stockholders will be entitled to receive in the merger may increase or decrease.

Assuming the successful application for initial listing with the Nasdaq Capital Market, following the closing of the merger, Edge expects the combined company's common stock will be listed on the Nasdaq Capital Market and will trade under Edge's new name, PDS Biotechnology Corporation and trading symbol PDSB.

As of February 8, 2019, there were approximately 36 stockholders of record and there were approximately 3,185 beneficial stockholders of Edge common stock.

Dividend Policy

Edge has never declared or paid any cash dividends on its common stock. Edge does not intend to pay cash dividends on its common stock for the foreseeable future. In addition, the terms of Edge's outstanding indebtedness restrict its ability to pay dividends, and any future indebtedness that Edge may incur could preclude it from paying dividends. Any future determination related to dividend policy will be made at the discretion of the Edge Board and will depend on then-existing conditions, including Edge's financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors the Edge Board may deem relevant.

PDS has never paid or declared any cash dividends on its common stock or preferred stock. If the merger does not occur, PDS does not anticipate paying any cash dividends on its common stock in the foreseeable future, and PDS intends to retain all available funds and any future earnings to fund the development and expansion of its business. Any future determination to pay dividends will be at the discretion of the PDS Board and will depend upon a number of factors, including its results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors the PDS Board deems relevant.

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RISK FACTORS

The combined company will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus/information statement, you should carefully consider the material risks described below before deciding how to vote your shares of stock. In addition, you should read and consider the risks associated with the business of Edge because these risks may also affect PDS and the combined company. These risks can be found in Edge's Annual Report on Form 10-K, as updated by subsequent Quarterly Reports on Form 10-Q, all of which are filed with the SEC. You should also read and consider the other information in this proxy statement/prospectus/information statement and the other documents incorporated by reference into this proxy statement/prospectus/information statement. Please see the section titled "Where You Can Find More Information."

Risks Related to the Merger

The Exchange Ratio is not adjustable based on the market price of Edge common stock so the merger consideration at the closing may have a greater or lesser value than at the time the Merger Agreement was signed.

The Merger Agreement has set the Exchange Ratio for the PDS common stock, and the Exchange Ratio is only adjustable upward or downward based on increases or decreases in the number of shares of PDS's issued and outstanding capital stock and the number of shares of PDS common stock issuable upon the exercise of all issued and outstanding equity awards, increases or decreases the number of Edge's issued and outstanding common stock, if the cash balances at closing of either Edge or PDS fall outside a pre-determined range, and the proposed reverse stock split, prior to the closing of the merger as described in the section titled "The Merger-Merger Consideration." The pre-reverse stock split Exchange Ratio is 6.5366, and the post-split Exchange Ratio will depend on the exact reverse stock split ratio that is ultimately mutually determined by Edge and PDS and certain changes in the capitalization of the two companies as well as the cash balances of both companies relative to the agreed upon ranges. If there is a significant divergence in the cash balances of either company relative to the agreed upon ranges there could be a material change to Exchange Ratio, which would affect the stockholders of one party at the expense of the other party. The longer it takes to complete the merger, the greater the possibility there is for Edge's cash balances to fall outside of the range. Any changes in the market price of Edge common stock before the closing of the merger will not affect the number of shares PDS securityholders will be entitled to receive pursuant to the Merger Agreement. Therefore, if before the closing of the merger the market price of Edge common stock declines from the market price on the date of the Merger Agreement, then PDS stockholders could receive merger consideration with substantially lower value. Similarly, if before the closing of the merger the market price of Edge common stock increases from the market price on the date of the Merger Agreement, then PDS stockholders could receive merger consideration with substantially more value for their shares of PDS common stock than the parties had negotiated for in the establishment of the Exchange Ratio. Because the Exchange Ratio does not adjust as a result of changes in the value of Edge common stock, for each one percentage point that the market value of Edge common stock rises or declines, there is a corresponding one percentage point rise or decline, respectively, in the value of the total merger consideration issued to PDS stockholders.

Failure to complete the merger may result in Edge paying a termination fee or expenses to PDS and could harm the common stock price of Edge and future business and operations of each company.

If the merger is not completed, Edge and PDS are subject to the following risks:

- if the Merger Agreement is terminated under certain circumstances and certain events occur, Edge will be required to pay PDS a termination fee of \$1.75 million;
- the price of Edge stock may decline and remain volatile; and

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- costs related to the merger, such as legal, accounting and investment banking fees which Edge and PDS estimate will total approximately \$5.3 million, of which \$3.5 million must be paid even if the merger is not completed.

In addition, if the Merger Agreement is terminated and the Edge Board determines to seek another business combination, there can be no assurance that Edge or PDS will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by each party in the merger.

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If the conditions to the merger are not met, the merger may not occur.

Even if the proposals referred to herein are approved by the stockholders of Edge and PDS, specified other conditions must be satisfied or waived to complete the merger. These conditions are set forth in the Merger Agreement and described in the section titled The Merger Agreement-Conditions to the Closing of the Merger. Edge and PDS cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the merger may not occur or will be delayed, and Edge and PDS each may lose some or all of the intended benefits of the merger.

The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes or other causes.

In general, either Edge or PDS can refuse to complete the merger if there is a material adverse change affecting the other party between November 23, 2018, the date of the Merger Agreement, and the closing. However, certain types of changes do not permit either party to refuse to complete the merger, even if such change could be said to have a material adverse effect on Edge or PDS, including:

- any effect, change, event, circumstance or development in general economic or business conditions generally affecting the industries in which PDS or Edge operate;
- any act of war, armed hostilities or terrorism;
- any changes in financial, banking or securities markets;
- the taking of any action required to be taken by the Merger Agreement;
- any changes in accounting requirements or principles or any change in applicable laws, rules or regulations or the interpretation thereof;
- any effect resulting from the announcement or pendency of the merger or any related transactions;
- with respect to Edge, any change in the stock price or trading volume of Edge common stock; or
- with respect to Edge, any clinical trial programs or studies, including any adverse data, event or outcome arising out of or related to any such programs or studies.

If adverse changes occur and Edge and PDS still complete the merger, the combined company stock price may suffer. This in turn may reduce the value of the merger to the stockholders of Edge and PDS.

The combined company will need to raise additional capital by issuing securities or debt or through licensing arrangements, which may cause dilution to the combined company's stockholders or restrict the combined company's operations or proprietary rights.

The combined company may be required to raise additional funds sooner than currently planned. Additional financing may not be available to the combined company when it needs it or may not be available on favorable terms. To the extent that the combined company raises additional capital by issuing equity securities, such an issuance may cause significant dilution to the combined company's stockholders' ownership and the terms of any new equity securities may have preferences over the combined company's common stock. Any debt financing the combined company enters into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of the combined company's assets, as well as prohibitions on its ability to create liens, pay dividends, redeem its stock or make investments. In addition, if the combined company raises additional funds through licensing or other strategic arrangements, it may be necessary to grant licenses on terms that are not favorable to the combined company or otherwise restrict its operations.

Certain Edge and PDS executive officers and directors have interests in the merger that are different from yours and that may influence them to support or approve the merger without regard to your interests.

Certain officers and directors of Edge and PDS participate in arrangements that provide them with interests in the merger that are different from yours, including, among others, the continued service as directors, in the case of Edge, or directors and officers, in the case of PDS, of the combined company, severance and retention benefits, the acceleration of stock options and continued indemnification.

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For example, Herbert J. Faleck, D.O., Edge's Chief Medical Officer, ceased serving as Chief Medical Officer on December 31, 2018, at which point Dr. Faleck's employment with Edge ended. Consistent with the terms of Dr. Faleck's employment agreement with Edge, upon the termination of Dr. Faleck's employment, and in accordance with Dr. Faleck's employment agreement, Dr. Faleck became entitled to receive an aggregate of approximately \$434,270 in cash severance benefits.

Furthermore, in connection with the closing of the merger, all unvested options to acquire shares of Edge common stock and Edge RSUs (including those held by Edge officers and the Edge board members (including Edge RSUs for 20,000 shares of Edge common stock and stock options for 220,607 and 64,286 shares of Edge common stock held by Robert Spiegel, M.D., FACP, and James J. Loughlin, respectively, who are expected to remain on the combined company's board of directors)) will vest in full. The exercise price of all unvested stock option awards held by the Edge board members and officers was below the trading price of Edge common stock as of January 16, 2019. Additionally, the parties expect that Dr. Sol Barer will enter into a consulting arrangement in connection with serving as an advisor to the board of directors of the combined company.

In addition, certain of Edge's executive officers are expected to become executive officers of the combined company upon the closing of the merger. Specifically, Andrew Saik is expected to serve as Chief Financial Officer of the combined company, and W. Bradford Middlekauff is expected to serve as Senior Vice President, General Counsel and Secretary of the combined company. Additionally, James Loughlin and Robert Spiegel, each of whom are a current director of Edge, and Andrew Saik, the Chief Financial Officer of Edge, will be designated to serve on the combined company's board of directors following the closing of the merger.

For more information, please see the section titled "The Merger-Interests of the Edge Directors and Executive Officers in the Merger."

Additionally, certain of PDS's directors and executive officers are expected to become directors and executive officers of the combined company upon the closing of the merger. Specifically, Frank Bedu-Addo, Ph.D. is expected to serve as the Chief Executive Officer, Lauren Wood, MD is expected to serve as Chief Medical Officer and Gregory Conn, Ph.D. is expected to serve as the Chief Scientific Officer of the combined company. Additionally, each of DeLyle Bloomquist, Sir Richard Sykes and Gregory Freitag, each of whom is a current director of PDS, will be designated to serve on the combined company's board of directors following the closing of the merger.

In addition, certain of PDS's executive officers and directors and affiliates of PDS's directors currently hold shares of PDS common stock and preferred stock. Affiliates of certain PDS directors and certain executive officers of PDS will convert their unsecured subordinated convertible promissory notes into shares of PDS common stock prior to the closing of the merger pursuant to the note purchase agreement. For more information, please see the section titled "The Merger-Interests of the PDS Directors and Executive Officers in the Merger."

The market price of the combined company's common stock following the merger may decline as a result of the merger.

The market price of the combined company's common stock may decline as a result of the merger for a number of reasons including if:

- investors react negatively to the prospects of the combined company's business and prospects from the merger;
- the effect of the merger on the combined company's business and prospects is not consistent with the expectations of financial or industry analysts; or
-

the combined company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

Edge and PDS stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

If the combined company is unable to realize the full strategic and financial benefits currently anticipated from the merger, Edge and PDS securityholders will have experienced substantial dilution of their ownership interests in their respective companies without receiving any commensurate benefit, or only receiving part of the commensurate benefit to the extent the combined company is able to realize only part of the strategic and financial benefits currently anticipated from the merger.

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During the pendency of the merger, Edge and PDS may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses.

Covenants in the Merger Agreement impede the ability of Edge and PDS to make acquisitions, subject, in the case of Edge, to certain exceptions relating to fiduciary duties, or complete other transactions that are not in the ordinary course of business pending the closing of the merger. As a result, if the merger is not completed, the parties may be at a disadvantage to their competitors during that period. In addition, while the Merger Agreement is in effect, each party is generally prohibited from soliciting, initiating, encouraging or entering into certain extraordinary transactions, such as a merger, sale of assets or other business combination outside the ordinary course of business, with any third-party, subject to, in the case of Edge, certain exceptions. Any such transactions could be favorable to such party's stockholders.

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit each of Edge and PDS from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except, with respect to Edge, in certain circumstances where the Edge Board determines in good faith, after consultation with its financial advisor and outside legal counsel, that an unsolicited alternative takeover proposal constitutes or is reasonably likely to result in a superior takeover proposal. In addition, if Edge or PDS terminate the Merger Agreement under certain circumstances, including terminating because of a decision of a board of directors to recommend an alternative proposal, Edge would be required to pay a termination fee of \$1.75 million to the other party. These termination fees and reimbursement obligations may Merger Agreement described above may discourage third parties from submitting alternative takeover proposals to Edge and its stockholders, and may cause the Edge Board to be less inclined to recommend an alternative proposal.

The lack of a public market for PDS shares makes it difficult to determine the fair market value of the PDS shares, and PDS stockholders may receive consideration in the merger that is less than the fair market value of the PDS shares and/or Edge may pay more than the fair market value of the PDS shares.

PDS is privately held and its capital stock is not traded in any public market. The lack of a public market makes it extremely difficult to determine PDS's fair market value. Because the percentage of Edge equity to be issued to PDS stockholders was determined based on negotiations between the parties, it is possible that the value of the Edge common stock to be received by PDS stockholders will be less than the fair market value of PDS, or Edge may pay more than the aggregate fair market value for PDS.

Risks Related to Edge

Investing in Edge common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this proxy statement/prospectus/information statement and in the other periodic and current reports and other documents it files with the SEC, before deciding to invest in its common stock. If any of the following risks materialize, Edge's business, financial condition, results of operation and future prospects will likely be materially and adversely affected. In that event, the market price of its common stock could decline and you could lose all or part of your investment.

Risks Related to the Merger and Edge's Evaluation of Strategic Alternatives

If the merger is not completed, Edge may be unsuccessful in completing an alternative transaction on terms that are as favorable as the terms of the proposed transaction with PDS, or at all, and Edge may be unable to reestablish an operating business. The Edge Board may decide to pursue a dissolution and liquidation of Edge. In such an event, the amount of cash available for distribution to Edge's stockholders will depend heavily on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

On March 28, 2018, Edge announced that an independent Data Monitoring Committee, or the DMC, for Edge's NEWTON 2 clinical trial for EG-1962 recommended that the NEWTON 2 study be stopped based on the DMC's conclusion that the study has a low probability of meeting its primary endpoint. Based on the DMC

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recommendation, Edge decided to discontinue the NEWTON 2 study and has taken steps to notify health authorities and clinical investigators participating in the study. Edge has ceased all further development of EG-1962 and Edge's other product candidates and has implemented operating cost reductions and organizational restructurings, including a reduction in Edge's workforce, to preserve Edge's cash resources. Edge's strategic focus shifted to the identification and evaluation of a range of potential strategic alternatives designed to maximize stockholder value.

In April 2018, Edge engaged Piper Jaffray as Edge's advisor to assist with the exploration of strategic alternatives. Edge devoted substantial time and resources to exploring such strategic alternatives.

To date, Edge's current assets consist primarily of cash, cash equivalents and marketable securities, Edge's clinical assets, Edge's listing on the Nasdaq Global Market and the Merger Agreement with PDS. While Edge has entered into the Merger Agreement with PDS, the closing of the merger with PDS may be delayed or may not occur at all and there can be no assurance that the merger will deliver the anticipated benefits Edge expects or enhance shareholder value.

If Edge is unable to consummate the merger with PDS, the Edge Board may elect to pursue an alternative strategy, one of which may be a strategic transaction similar to the proposed merger with PDS. Attempting to complete an alternative transaction will be costly and time consuming, and Edge can make no assurances that such an alternative transaction would occur at all. Alternatively, the Edge Board may elect to continue operations to conduct another study of EG-1962 or decide to pursue a dissolution and liquidation of the company. In such an event, the amount of cash available for distribution to Edge's stockholders will depend heavily on the timing of such decision, as with the passage of time the amount of cash available for distribution will be reduced as Edge continues to fund its operations. In addition, if the Edge Board was to approve and recommend, and Edge's stockholders were to approve, a dissolution and liquidation of the company, Edge would be required under Delaware corporate law to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to Edge's stockholders. Edge's commitments and contingent liabilities may include severance obligations, regulatory and clinical obligations remaining under Edge's NEWTON 2 study, fees and expenses related to the merger and liabilities relating to investigations of or litigation against Edge and other various claims and legal actions. As a result of this requirement, a portion of Edge's assets may need to be reserved pending the resolution of such obligations. In addition, Edge may be subject to litigation or other claims related to a dissolution and liquidation. If a dissolution and liquidation were pursued, the Edge Board, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of Edge common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up of the company.

Failure to obtain stockholder approval for the proposed reverse stock split may result in the combined company being unable to obtain compliance with minimum bid price requirements for an initial listing on any Nasdaq market tier and may result in Edge common stock being delisted from the Nasdaq Global Select Market.

Edge is required pursuant to the terms of the Merger Agreement to submit to its stockholders a proposal to approve an amendment to its certificate of incorporation to authorize the Edge Board to effect a reverse stock split of all outstanding shares of its common stock. If the Reverse Stock Split Proposal is not approved by Edge's stockholders, the combined company will likely not be able to obtain compliance with the minimum bid price requirement for an initial listing on any Nasdaq market tier and, as a consequence, to the extent the merger is consummated under such circumstances, Nasdaq will immediately provide the combined company with written notification that the combined company's common stock will be delisted.

Upon receipt of such delisting letter, the combined company will likely appeal the determination to the Nasdaq hearings panel, or the Hearing Panel. If the combined company has not regained compliance with Nasdaq listing

requirements prior to such hearing, and the Hearing Panel decides to continue with delisting of the combined company, the Hearing Panel's decision may be appealed to the Nasdaq Listing and Hearing Review Council but such appeal would not stay the delisting process.

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The issuance of shares of Edge common stock to PDS stockholders in the merger will dilute substantially the voting power of Edge's current stockholders.

If the merger is completed, each outstanding share of PDS common stock will be converted into the right to receive a number of shares of Edge common stock equal to the Exchange Ratio determined pursuant to the Merger Agreement. Immediately following the merger, Edge securityholders are expected to own approximately 30% of the outstanding capital stock of the combined company on a fully diluted basis, and PDS securityholders are expected to own approximately 70% of the outstanding capital stock of the combined company on a fully diluted basis. Accordingly, the issuance of shares of Edge common stock to PDS stockholders in the merger will reduce significantly the relative voting power of each share of Edge common stock held by Edge's current securityholders. Consequently, Edge securityholders as a group will have significantly less influence over the management and policies of the combined company after the merger than prior to the merger.

If the combined company after the merger is unable to realize the strategic and financial benefits currently anticipated from the merger, the Edge stockholders and the PDS stockholders will have experienced substantial dilution of their ownership interests in their respective companies without receiving the expected commensurate benefit, or receiving only part of the commensurate benefit to the extent the combined company is able to realize only part of the expected strategic and financial benefits currently anticipated from the merger.

The pendency of the merger could have an adverse effect on the trading price of Edge common stock and Edge's business, financial condition, results of operations or business prospects.

While there have been no significant adverse effects to date, the pendency of the merger could disrupt Edge's businesses in the following ways, including:

- the attention of Edge's management may be directed toward the closing of the merger and related matters and may be diverted from the day-to-day business operations; and
- third parties may seek to terminate or renegotiate their relationships with Edge as a result of the merger, whether pursuant to the terms of their existing agreements with Edge or otherwise.

Should they occur, any of these matters could adversely affect the trading price of Edge common stock or harm Edge's financial condition, results of operations or business prospects.

Stockholder litigation and regulatory inquiries and investigations are expensive and could harm Edge's business, financial condition and operating results and could divert management attention.

In the past, securities class action litigation and/or stockholder derivative litigation and inquiries or investigations by regulatory authorities have often followed certain significant business transactions, such as the sale of a company or announcement of any other strategic transaction, such as the merger, or the announcement of negative events, such as negative results from clinical trials. Edge is currently and may in the future be the target of this type of litigation as a result of changes in Edge's stock price, past transactions, results of clinical trials or other matters. Any stockholder litigation and/or regulatory investigations against Edge, whether or not resolved in Edge's favor, could result in substantial costs and divert Edge's management's attention from other business concerns, which could adversely affect Edge's business and cash resources and Edge's ability to consummate a potential strategic transaction or the ultimate value Edge's stockholders receive in any such transaction.

Edge is substantially dependent on Edge's remaining employees to facilitate the consummation of a strategic transaction.

On May 1, 2018, Edge announced that it planned to reduce its workforce by 29 to a total of eight full-time employees. Edge's ability to successfully complete a strategic transaction depends in large part on Edge's ability to retain certain of its remaining personnel. Despite Edge's efforts to retain these employees, one or more may terminate their employment with Edge on short notice. The loss of the services of any of these employees could potentially harm Edge's ability to consummate the merger, to run Edge's day-to-day operations, as well as fulfill Edge's reporting obligations as a public company.

There is no assurance that the proposed merger will be completed in a timely manner or at all. If the merger is not consummated, Edge's business could suffer materially and its stock price could decline.

The closing of the proposed merger is subject to a number of closing conditions, including the approval by Edge's stockholders of the issuance of shares of Edge common stock pursuant to the Merger Agreement and the

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proposed reverse stock split of Edge common stock and other customary closing conditions. If the conditions are not satisfied or waived, the merger will not occur or will be delayed.

If the proposed merger is not consummated, Edge may be subject to a number of material risks, and Edge's business and stock price could be adversely affected, as follows:

- Edge has incurred and expects to continue to incur significant expenses related to the proposed merger even if the merger is not consummated;
- Edge could be obligated to pay PDS a termination fee of up to \$1.75 million under certain circumstances pursuant to the Merger Agreement;
- the market price of Edge common stock may decline to the extent that the current market price reflects a market assumption that the proposed merger will be completed; and
- Edge may not be able to pursue an alternate merger transaction if the proposed merger with PDS is not completed.

Risks Related to Development and Regulatory Approval

Edge may not be able to successfully develop or obtain regulatory approval for EG-1962 or any other product candidate.

Edge has ceased all research and development activities for EG-1962 and its other product candidates. Edge currently has no drug products for sale and may never be able to develop marketable drug products. If Edge were to resume research and development activities, EG-1962 will require substantial additional clinical development, testing, and regulatory approval before Edge will be permitted to commence its commercialization. No clinical studies have been undertaken with respect to Edge's only other product candidates, EG-1964 and EG-1965. If Edge were to resume research and development activities, the clinical studies of Edge's product candidates will be, and the manufacturing and marketing of Edge's product candidates will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where Edge intends to investigate and, if approved, market any product candidate. If Edge were to resume research and development activities, before obtaining regulatory approvals for the commercial sale of any product candidate, Edge would have to successfully meet a number of critical developmental milestones. For example, for EG-1962, these would include:

- providing adequate and well-controlled data that the product candidate is safe and effective and shows a significant benefit over the active comparator in patients for the intended indication;
- demonstrating that the product candidate formulation is reproducible and can meet the relevant release specifications for each market Edge intends to commercialize in; and
- completing the development and scale-up to permit manufacture of Edge's product candidates in commercial quantities and at acceptable prices.

The time necessary to achieve these developmental milestones for any individual product candidate is long and uncertain.

If Edge were to resume research and development activities, Edge may not be able to finalize the design or formulation of any product candidate. In addition, if Edge were to resume research and development activities, Edge may select components, solvents, excipients or other ingredients to include in its product candidates that have not previously been used in approved pharmaceutical products, which may require Edge to perform additional studies and may delay clinical testing and regulatory approval of its product candidates. If Edge were to resume research and development activities, Edge may not be able to complete development of any product candidates that will be safe and effective and that will have a commercially reasonable treatment and storage period, and may not be able to commercialize and earn revenue from any products candidates. Moreover, even if a product candidate can be approved, it could be blocked by competitor patents or exclusivities.

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The regulatory approval processes of the FDA and comparable foreign regulatory authorities are inherently unpredictable, and, to the extent Edge resumes research and development activities, if Edge's product candidates are subject to multiple cycles of review or Edge is ultimately unable to obtain regulatory approval for its product candidates, Edge's business will be substantially harmed. In addition, the regulatory approval processes can delay clinical trials, which can jeopardize the ability to generate revenues from the sale of products.

Of the large number of drugs in development in the United States, only a small percentage successfully complete the FDA regulatory approval process and are commercialized. Edge has ceased all research and development activities for EG-1962 and its other product candidates but to the extent that Edge resumes research and development activities, Edge will not be permitted to market any of product candidates in the United States or in other global markets until Edge receives approval of an NDA from the FDA or the requisite approval from such other global regulatory authorities. Successfully completing clinical studies and obtaining approval of an NDA is complex, lengthy, and expensive. The FDA or a comparable foreign regulatory authority may delay, limit or deny approval of product candidates for many reasons, including, among others:

- disagreement with, or disapproval of, the design of, procedures for, or implementation of, clinical trials;
- the inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical trial;
- disagreement with the sufficiency of the final content and data included in a marketing application;
- feedback from the FDA or a comparable foreign regulatory authority on results from earlier stage or concurrent preclinical and clinical studies, that might require modification to the protocol;
- a decision by the FDA or a comparable foreign regulatory authority to suspend or terminate clinical trials at any time for safety issues or for any other reason;
- challenges in meeting regulatory requirements to commence clinical trials in countries outside the United States;
- failure to conduct the trial in accordance with regulatory requirements;
- failure to demonstrate that the product candidate provides an overall benefit to risk or significant enough improvement over the comparator in the proposed indication;
- failure of the product candidate to demonstrate efficacy at the level of statistical significance required for approval;
- a negative interpretation of the data from preclinical studies or clinical trials;
- deficiencies in the manufacturing processes or failure of third party manufacturing facilities to effectively and consistently manufacture product or to pass FDA pre-approval facility inspection;
- failure to demonstrate adequate and reproducible product stability to support product commercialization;
- failure to adequately demonstrate process performance qualification prior to product commercialization;
- inability to validate analytical and microbiological methods consistent with industry and government agency expectations; or
- changes in governmental regulations or administrative actions.

Further, if Edge were to resume research and development activities and experiences delays in the completion of, or termination of, any clinical trial of product candidates, the commercial prospects of those product candidates will be harmed, and Edge's ability to generate product revenues will be delayed or may not happen at all, which circumstances may significantly harm Edge's business, financial condition and prospects.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials and non-head-to-head analysis (e.g., historical comparisons) may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical

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trials of product candidates may not be predictive of the results of later-stage clinical trials. Many companies in the biotechnology industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy, failure by the study drug to demonstrate sufficiently improved efficacy over a comparator arm, or adverse safety profiles, notwithstanding promising results in earlier trials. If Edge were to resume research and development activities, Edge's future clinical trials may not be successful.

To the extent Edge were to resume research and development activities, even if a product candidate receives regulatory approval, it may still face future development and regulatory challenges and any approved products will be subject to extensive post-approval regulatory requirements.

To the extent Edge were to resume research and development activities and in the future obtains regulatory approval for a product candidate, Edge would be subject to extensive ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-market information. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of Edge's product candidates, these regulatory authorities may require labeling changes or, depending on the nature of the safety information, establishment of a Risk Evaluation and Mitigation Strategy, impose significant restrictions on a product's indicated uses or marketing, impose ongoing requirements for potentially costly post-approval studies or post-market surveillance, cause a recall or even move to withdraw the marketing approval for the product.

In addition, manufacturers of therapeutic products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with applicable regulations, including a focused pre-approval inspection in connection with any regulatory submission for approval. If Edge or a regulatory agency discover previously unknown problems with a product, such as problems with the facility where the product is manufactured, a regulatory agency may take regulatory actions against the manufacturing facility or Edge, leading to a product recall or withdrawal, or suspension of manufacturing.

If Edge, Edge's product candidates or the manufacturing facilities for Edge's product candidates fail to comply with applicable regulatory requirements, Edge's ability to commercialize Edge's products and generate revenue may be significantly limited.

Advertising and promotion of any product candidate that obtains approval in the United States may be heavily scrutinized by the FDA, including the Office of Prescription Drug Promotion, the Department of Justice, or the DOJ, the Department of Health and Human Services, Office of Inspector General, state attorneys general, members of Congress and the public. Violations, including promotion of products for unapproved (or off-label) uses, may be subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA. Additionally, advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign regulatory authorities.

In the United States, engaging in impermissible promotion of products, including for off-label uses, can also subject companies to false claims litigation under federal and state statutes, which can lead to civil and criminal penalties and fines and agreements that materially restrict the manner in which a company can promote or distribute a drug product. These false claims statutes include the False Claims Act, or FCA, which allows any individual to bring a lawsuit against a pharmaceutical company on behalf of the federal government alleging submission of false or fraudulent claims, or causing to present such false or fraudulent claims, for payment by a federal program such as Medicare or Medicaid. If the government prevails in the lawsuit, the individual will share in any fines or settlement funds. Since 2004, these FCA lawsuits against pharmaceutical companies have increased significantly in volume and breadth,

leading to several substantial civil and criminal settlements based on certain sales practices promoting off-label drug uses. This growth in litigation has increased the risk that a pharmaceutical company will have to defend a false claim action, pay settlement fines or restitution, agree to comply with burdensome reporting and compliance obligations, and be excluded from the Medicare, Medicaid, and other federal and state healthcare programs. If Edge does not lawfully promote any approved products, Edge may become subject to such litigation and, if Edge is not successful in defending against such actions, those actions may have a material adverse effect on Edge's business, financial condition and results of operations.

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Failure to obtain regulatory approval in international jurisdictions would prevent Edge's product candidates from being marketed abroad.

To the extent Edge were to resume research and development activities and in the future obtains regulatory approval for a product candidate, in order to market and sell Edge's products in the EU, Canada, Japan and other international jurisdictions, Edge would have to obtain separate and distinct marketing approvals and comply with the respective regulatory requirements of each of these jurisdictions. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval, but can involve additional testing or safety surveillance. Edge may need to partner with third parties in order to obtain regulatory approvals outside the United States. Approval by the FDA does not necessarily guarantee approval by regulatory authorities in other countries or jurisdictions. Nor does the approval by one regulatory authority outside the United States ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. Edge may not be able to file for marketing approvals and may not receive necessary approvals to commercialize Edge's products in any market. If Edge is unable to obtain approval of any product candidates by regulatory authorities in the EU, Canada, and other international jurisdictions, the commercial prospects of those product candidates may be significantly diminished and Edge's business prospects could dramatically decline.

Risks Related to Edge's Business and Industry

To the extent Edge were to resume research and development activities, Edge's future success will depend on Edge's ability to attract, retain and motivate qualified personnel.

Edge does not have the resources or the required expertise to develop any of its potential product candidates. To the extent Edge were to seek to resume research and development activities, because of the specialized scientific nature of Edge's business, it would need to hire additional qualified scientific personnel. The competition for qualified personnel in the pharmaceutical field is intense and, as a result, Edge may be unable to attract qualified personnel necessary for the future development of Edge's business.

The pharmaceutical industry is highly competitive and is subject to rapid and significant technological change, which could render Edge's technologies and products obsolete or uncompetitive.

If Edge were to resume research and development activities, there is no assurance that Edge's product candidates will be the most effective, the safest, the first to market, or the most economical to make or use. The introduction of competitive therapies as alternatives to any of Edge's product candidates could dramatically reduce the value of those development projects or chances of successfully commercializing those product candidates, which could have a material adverse effect on Edge's long-term financial success.

Edge's business and operations would suffer in the event of system failures.

Despite the implementation of security measures, the servers of Edge's cloud-based computing providers and other systems, and those of Edge's CROs and other third parties on which Edge relies, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in Edge's operations, it could result in a material disruption of Edge's drug development programs if Edge were to resume research and development activities. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in Edge's regulatory approval efforts and significantly increase Edge's costs to recover or reproduce the data. To the extent that any disruption or security breach was to result in a loss of or damage to Edge's data or applications, or inappropriate disclosure of confidential or proprietary information, Edge could incur liability and the further development of Edge's product candidates could be delayed.

Any future collaborators may compete with Edge or have interests which conflict with Edge's. This may restrict any future research and development efforts.

If Edge were to resume research and development activities, large pharmaceutical companies with whom Edge may seek to collaborate may have internal programs or enter into collaborations with Edge's competitors for products addressing the same medical conditions targeted by Edge's technologies. Thus, such collaborators may pursue alternative technologies or product candidates in order to develop treatments for the diseases or disorders targeted by Edge's collaborative arrangements. Such collaborators may pursue these alternatives either

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on their own or in collaboration with others, including Edge's competitors. Depending on how other product candidates advance, a corporate partner may slow down or abandon its work on Edge's product candidates or terminate its collaborative arrangement with Edge in order to focus on these other prospects.

If any conflicts arise, Edge's future collaborators may act in their own interests, which may be adverse to Edge. In addition, in Edge's future collaborations, Edge may be required to agree not to conduct any research that is competitive with the research conducted under Edge's future collaborations. Edge's future collaborations may have the effect of limiting the areas of research that Edge may pursue. Edge's collaborators may be able to develop products in related fields that are competitive with the products or potential products that are the subject of these collaborations.

Business disruptions could seriously harm Edge's financial condition and increase Edge's costs and expenses.

Edge's operations could be subject to natural disasters, power shortages, telecommunications failures, water shortages, fires, medical epidemics and other manmade disasters or business interruptions, for which Edge or they are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm Edge's financial condition and increase Edge's costs and expenses.

Edge's employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on Edge's business.

Edge is exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, to provide accurate information to the FDA or comparable foreign regulatory authorities, to comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, to report financial information or data accurately or to disclose unauthorized activities to Edge. Edge has adopted, implemented, and is enforcing a code of conduct, or Code of Conduct, and other compliance-based policies and procedures, but it is not always possible to identify and deter employee misconduct, and the precautions Edge takes to detect and prevent this activity, such as employee training on enforcement of the Code of Conduct and other policies and procedures, may not be effective in controlling unknown or unmanaged risks or losses or in protecting Edge from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against Edge, and Edge is not successful in defending itself or asserting Edge's rights, those actions could have a significant impact on Edge, including the imposition of significant fines or other sanctions.

Risks Related to Edge's Intellectual Property

If Edge is unable to protect Edge's intellectual property rights, Edge's competitive position could be harmed.

If Edge were to resume research and development activities, Edge will depend on its ability to protect its proprietary technology. Edge relies on trade secret, patent, copyright and trademark laws, and confidentiality, licensing and other agreements with employees and third parties, all of which offer only limited protection. If Edge were to resume research and development activities, Edge's success will depend in large part on its ability to obtain and maintain patent protection in the United States and other countries with respect to Edge's proprietary technology and products.

The patent positions of biotechnology and pharmaceutical companies generally are highly uncertain, involve complex legal and factual questions and have in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of Edge's patents are highly uncertain.

The steps Edge has taken to police and protect Edge's proprietary rights may not be adequate to preclude misappropriation of Edge's proprietary information or infringement of Edge's intellectual property rights, both inside and outside the United States. The rights already granted under any of Edge's currently issued/granted patents and those that may be granted under future issued/granted patents may not provide Edge with the proprietary protection or competitive advantages Edge may seek in the future. If Edge is unable to obtain and maintain patent protection for Edge's technology and products, or if the scope of the patent protection obtained is not sufficient, Edge's competitors could develop and commercialize technology and products similar or superior to Edge's, and Edge's ability to successfully commercialize Edge's technology and products may be adversely affected.

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Although Edge has a number of issued/granted patents, the issuance/grant of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and issued/granted patents that Edge owns or has licensed from third parties may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in the loss of patent protection, the narrowing of claims in such patents, or the invalidity or unenforceability of such patents, which could limit Edge's ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection for Edge's technology and products.

Protecting against the unauthorized use of Edge's patented technology, trademarks and other intellectual property rights is expensive, difficult and, may in some cases not be possible. In some cases, it may be difficult or impossible to detect third party infringement or misappropriation of Edge's intellectual property rights, even in relation to issued/granted patent claims, and proving any such infringement may be even more difficult.

Edge could be required to incur significant expenses to obtain Edge's intellectual property rights, and Edge cannot ensure that Edge will obtain meaningful patent protection for its products.

The patent prosecution process is expensive and time-consuming, and Edge or any future licensors may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. In addition, if Edge were to resume research and development activities, it is also possible that Edge or Edge's licensors will fail to identify patentable aspects of further inventions made in the course of Edge's development and commercialization activities before they are publicly disclosed, making it too late to obtain patent protection on them. Further, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of Edge's patents or narrow the scope of Edge's patent protection. The laws of foreign countries may not protect Edge's rights to the same extent as the laws of the United States, and these foreign laws may also be subject to change.

Obtaining and maintaining Edge's patent protection depends on compliance with various procedural, document submissions, fee payment and other requirements imposed by governmental patent agencies, and Edge's patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued/granted patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If Edge or Edge's licensors fail to maintain the patents and patent applications covering any of Edge's product candidates, Edge's competitors might be able to enter the market, which would have a material adverse effect on Edge's business.

Edge may become involved in lawsuits to protect or enforce Edge's intellectual property, which could be expensive, time consuming and unsuccessful.

Competitors may infringe Edge's patents or misappropriate or otherwise violate Edge's intellectual property rights. To counter infringement or unauthorized use, litigation may be necessary in the future to enforce or defend Edge's intellectual property rights, to protect Edge's trade secrets or to determine the validity and scope of Edge's own intellectual property rights or the proprietary rights of others. This can be expensive and time consuming and results

can be uncertain. Many of Edge's current and potential competitors have the ability to dedicate substantially greater resources to defend their intellectual property rights than Edge can. Accordingly, despite Edge's efforts, Edge may not be able to prevent third parties from infringing upon or misappropriating Edge's intellectual property, particularly in certain parts of the world. Litigation could result in substantial costs and diversion of management resources, which could harm Edge's business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by, or licensed to, Edge is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that

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Edge's patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of Edge's patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Edge's confidential information could be compromised by disclosure during this type of litigation. If any of these occur, Edge's business could be materially and adversely affected.

From time to time Edge may need to rely on licenses to proprietary technologies, which may be difficult, expensive or not possible to obtain or Edge may lose certain licenses which may be difficult or not possible to replace.

If Edge were to resume research and development activities, Edge may need to obtain licenses to patents and other proprietary rights held by third parties to develop, manufacture and market Edge's product candidates. If Edge is unable to timely obtain these licenses on commercially reasonable terms and maintain these licenses, Edge's ability to commercially market Edge's product candidates may be inhibited or prevented, which could have a material adverse effect on Edge's business, results of operations, financial condition and cash flows.

Third parties may initiate legal proceedings alleging that Edge is infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of Edge's business.

If Edge were to resume research and development activities, Edge's commercial success will depend upon Edge's ability to develop, manufacture, market and sell Edge's product candidates, and to use Edge's proprietary technologies without infringing the proprietary rights of third parties. Edge may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to Edge's products and technology, including interference (for patents with an effective date before March 16, 2013) and various post grant proceedings before the USPTO, and opposition proceedings at other patent offices. Third parties may assert infringement claims against Edge based on existing patents or patents that may be granted in the future. In the event a third party were to assert an infringement claim against Edge and Edge were ultimately found to infringe the third party's intellectual property rights, Edge could be required to obtain a license from such third party to continue developing and commercializing Edge's products and technology. However, Edge may not be able to obtain an appropriate license on commercially reasonable terms or at all. Even if Edge is able to obtain a license, it may be non-exclusive, thereby giving Edge's competitors access to the same technologies licensed to Edge. Edge could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, in any such proceeding or litigation, Edge could be found liable for monetary damages. A finding of infringement could prevent Edge from commercializing Edge's product candidates or force Edge to cease some of Edge's business operations, which could materially harm Edge's business. Any claims by third parties that Edge has misappropriated their confidential information or trade secrets could have a similar negative impact on Edge's business.

Edge's trade secrets are difficult to protect.

Confidentiality agreements with employees and others may not adequately prevent disclosure of Edge's trade secrets and other proprietary information and may not adequately protect Edge's intellectual property.

If Edge were to resume research and development activities, Edge's success will depend upon the skills, knowledge and experience of Edge's scientific and technical personnel, Edge's consultants and advisors as well as Edge's partners, licensors and contractors. Because Edge operates in a highly competitive technical field of drug discovery, Edge relies in part on trade secrets to protect Edge's proprietary technology and processes. However, trade secrets are difficult to protect. Edge enters into confidentiality and invention assignment agreements with Edge's employees and certain of Edge's corporate partners, consultants, sponsored researchers and other advisors. These agreements generally require that the receiving party keep confidential and not disclose to third parties all confidential information developed by the receiving party or made known to the receiving party by Edge during the course of the receiving party's relationship

with Edge. These confidentiality and assignment agreements may be breached and may not effectively assign intellectual property rights to Edge.

Edge's trade secrets also could be independently discovered by competitors, in which case Edge would not be able to prevent use of such trade secrets by Edge's competitors. The enforcement of a claim alleging that a party illegally obtained and was using Edge's trade secrets could be difficult, expensive and time consuming and

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the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. The failure to obtain or maintain meaningful trade secret protection could adversely affect Edge's competitive position.

Edge may be subject to claims that Edge's employees or consultants have wrongfully used or disclosed alleged trade secrets of their former employers or other third parties.

Many of Edge's employees and consultants were previously employed at other biotechnology or pharmaceutical companies, including Edge's competitors or potential competitors. Some of these employees, including each member of Edge's senior management, and consultants executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment. Although Edge tries to ensure that Edge's employees and consultants do not use the proprietary information or know-how of others in their work for Edge, Edge may be subject to claims that Edge or these employees and consultants have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's or consultant's former employer. Edge is not aware of any threatened or pending claims related to these matters or concerning the agreements with Edge's senior management, but in the future, litigation may be necessary to defend against such claims. If Edge fails in defending any such claims, in addition to paying monetary damages, Edge may lose valuable intellectual property rights or personnel. Even if Edge is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

Intellectual property disputes could cause Edge to spend substantial resources.

Even if resolved in Edge's favor, litigation or other legal proceedings relating to intellectual property claims may cause Edge to incur significant expenses. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the market price of Edge's common stock. Such litigation or proceedings could substantially increase Edge's operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. Edge may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of Edge's competitors may be able to sustain the costs of such litigation or proceedings more effectively than Edge can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on Edge's ability to compete in the marketplace.

Edge may not be able to protect Edge's intellectual property rights throughout the world.

Filing, prosecuting and defending patents on all of Edge's product candidates throughout the world could be prohibitively expensive.

Competitors may use Edge's technologies in jurisdictions where Edge has not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where Edge has patent protection, but where enforcement is not as strong as that in the United States. These products may compete with any of Edge's future products, to the extent Edge resumes research and development activities, in jurisdictions where Edge does not have any issued/granted patents and Edge's patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for Edge to stop the infringement of Edge's patents or marketing of competing products in violation of Edge's proprietary

rights generally. Proceedings to enforce Edge's patent rights in foreign jurisdictions could result in substantial cost and divert Edge's efforts and attention from other aspects of Edge's business and will have uncertain outcomes.

Risks Related to Edge's Financial Position and Capital Needs

Edge has incurred significant losses since Edge's inception and anticipates that Edge will continue to incur losses for the foreseeable future.

Edge is a clinical-stage biotechnology company. Investment in biotechnology product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that a product candidate will fail to gain regulatory approval or become commercially viable. Edge has not generated any revenue from

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product sales to date, and Edge continues to incur expenses related to Edge's ongoing operations. As a result, Edge is not profitable and has incurred losses in each period since inception in 2009. For the years ended December 31, 2017 and December 31, 2016 and the nine months ended September 30, 2018, Edge reported a net loss of \$50.9 million, \$38.8 million and 37.8 million, respectively.

Edge expects to continue to incur losses for the foreseeable future. Edge may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect Edge's business. Edge's prior losses and expected future losses have had and will continue to have an adverse effect on Edge's stockholders' (deficit) equity and working capital.

Edge has not generated any revenues since inception and may never become profitable.

Edge has not generated any revenues since Edge's inception. If Edge were to resume research and development activities, even if Edge is able to successfully achieve regulatory approval for any product candidates, Edge does not know when any of these products will generate revenue for Edge, if at all.

If Edge were to resume research and development activities, Edge will require additional capital to fund Edge's operations and if Edge fails to obtain necessary financing, Edge will not be able to complete the development and commercialization of Edge's product candidates.

Edge's operations have consumed substantial amounts of cash since inception. If Edge were to resume research and development activities, Edge will require additional capital for the further development and commercialization of Edge's product candidates.

Under such circumstances Edge cannot be certain that additional funding will be available on acceptable terms, or at all. If Edge is unable to raise additional capital in sufficient amounts or on terms acceptable to Edge, Edge may have to significantly delay, scale back or discontinue the development or commercialization of one or more of Edge's products or product candidates or one or more of Edge's other research and development initiatives.

Raising additional capital may cause dilution to Edge's stockholders, restrict Edge's operations or require Edge to relinquish rights to Edge's technologies or product candidates.

If Edge were to resume research and development activities, Edge may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. To the extent that Edge raises additional capital through the sale of equity or convertible debt securities, Edge's then-existing stockholders' ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of then-existing stockholders. Debt financings may be coupled with an equity component, such as warrants to purchase stock, which could also result in dilution of Edge's then-existing stockholders' ownership. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on Edge's ability to incur additional debt, limitations on Edge's ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact Edge's ability to conduct Edge's business and may result in liens being placed on Edge's assets and intellectual property. If Edge were to default on such indebtedness, Edge could lose such assets and intellectual property. If Edge raises additional funds through strategic partnerships and alliances and licensing arrangements with third parties, Edge may have to relinquish valuable rights to Edge's product candidates, or grant licenses on terms that are not favorable to Edge.

Risks Related to Ownership of Edge's Common Stock

The trading market in Edge's common stock has been extremely limited and substantially less liquid than the average trading market for a stock quoted on the NASDAQ Global Select Market.

Prior to Edge's initial public offering, or IPO, there was no market for shares of Edge's common stock. Since Edge's initial listing on the NASDAQ Global Select Market on October 1, 2015, the trading market in Edge's common stock has been limited and substantially less liquid than the average trading market for companies quoted on the NASDAQ Global Select Market. The quotation of Edge's common stock on the NASDAQ Global Select Market does not assure that a meaningful, consistent and liquid trading market currently exists. Edge cannot predict whether a more active market for Edge's common stock will develop in the future. An absence of an active trading market could adversely affect Edge's stockholders' ability to sell Edge's common

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stock at current market prices in short time periods, or possibly at all. Additionally, market visibility for Edge's common stock may be limited and such lack of visibility may have a depressive effect on the market price for Edge's common stock. As of December 31, 2018, approximately 41% of Edge's outstanding shares of common stock was held by Edge's officers, directors, beneficial owners of 5% or more of Edge's capital stock and their respective affiliates, which adversely affects the liquidity of the trading market for Edge's common stock, inasmuch as federal securities laws restrict sales of Edge's shares by these stockholders under certain circumstances. If Edge's affiliates continue to hold their shares of common stock, there will be limited trading volume in Edge's common stock, which may make it more difficult for investors to sell their shares or increase the volatility of Edge's stock price.

If Edge fails to continue to meet all applicable Nasdaq Global Select Market requirements and Nasdaq determines to delist Edge's common stock, the delisting could adversely affect the market liquidity of Edge's common stock and the market price of Edge's common stock could decrease.

Edge's common stock is listed on The Nasdaq Global Select Market. In order to maintain Edge's listing, Edge must meet minimum financial and other requirements, including requirements for a minimum amount of capital, a minimum price per share and continued business operations so that Edge is not characterized as a public shell company. Edge has received written notice from Nasdaq stating that, at present, Edge is not in compliance with the audit committee requirements for continued listing on The Nasdaq Global Select Market, because Edge currently has an audit committee comprised of two members. If Edge does not regain compliance with audit committee requirements in a timely manner, Nasdaq will provide written notification to Edge that Edge's securities will be subject to delisting. In addition, Edge has received written notice from Nasdaq stating that, at present, Edge is not in compliance with the bid price requirements for Edge's common stock because the bid price for Edge's common stock had closed below \$1.00 per share for 30 consecutive business days. If Edge does not regain compliance with the bid price requirements in a timely manner, Nasdaq will provide written notification to Edge that Edge's securities will be subject to delisting.

Nasdaq has notified Edge that, in connection with the Merger, Edge will be required to submit a new listing application and meet Nasdaq's initial listing requirements, as opposed to Nasdaq's more lenient continued listing requirements. Edge cannot provide any assurance that it will meet the initial listing requirements at the closing of the Merger. If the merger is consummated, the combined company following such transaction will need to meet Nasdaq's initial listing standards. If Edge is unable to comply with Nasdaq's listing standards, Nasdaq may determine to delist Edge's common stock from The Nasdaq Global Select Market or other of Nasdaq's trading markets. If Edge's common stock is delisted for any reason, it could reduce the value of Edge's common stock and its liquidity.

Market volatility may affect Edge's stock price and the value of Edge's stockholders' investment.

The trading price of Edge's common stock, similar to other biotechnology companies, is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond Edge's control, including, among others:

- regulatory actions with respect to Edge;
- the recruitment or departure of key personnel;
- announcements by Edge or Edge's competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued/granted patents or other proprietary rights;
- the level of Edge's expenses;
- actual or anticipated changes in estimates as to financial results;
- variations in Edge's financial results or those of companies that are perceived to be similar to Edge;

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- fluctuations in the valuation of companies perceived by investors to be comparable to Edge;
- share price and volume fluctuations attributable to inconsistent trading volume levels of Edge's shares;

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- announcement or expectation of additional financing efforts;
- sales of Edge's common stock by Edge, Edge's insiders or Edge's other stockholders;
- market conditions in the pharmaceutical and biotechnology sectors; and
- general economic, industry and market conditions.

In addition, the stock market in general, and pharmaceutical and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies.

Broad market and industry factors may negatively affect the market price of Edge's common stock, regardless of Edge's actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in these Risk Factors, could have a dramatic and material adverse impact on the market price of Edge's common stock.

Future sales of a substantial number of shares of Edge's common stock in the public market or other issuances of Edge's common stock or rights to purchase common stock, including pursuant to equity incentive plans could result in additional dilution of the percentage ownership of Edge's stockholders and could cause Edge's stock price to fall.

Edge's stock price could decline as a result of sales of a large number of shares of Edge's common stock, including shares issuable upon exercise of stock options and warrants, or the perception that these sales could occur. These sales, or the possibility that these sales may occur, also might make it more difficult for Edge to sell equity securities in the future at a time and at a price that Edge deems appropriate.

As of December 31, 2018, the holders of up to 3,290,905 shares, or 10.4%, of Edge's common stock outstanding, will have rights, subject to some conditions, to require Edge to file registration statements covering the sale of their shares or to include their shares in registration statements Edge may file for itself or other stockholders. Once Edge registers the offer and sale of shares for the holders of registration rights, they can be freely sold in the public market.

In addition, in the future, Edge may issue additional shares of common stock or other equity or debt securities convertible into common stock in connection with a financing, acquisition, litigation settlement, employee arrangements, or otherwise. Any such issuance could result in substantial dilution to Edge's then-existing stockholders and could cause Edge's stock price to decline.

Future issuances of Edge's common stock or rights to purchase common stock, including pursuant to Edge's equity incentive plans, could result in additional dilution of the percentage ownership of Edge's stockholders and could cause Edge's stock price to fall.

Any future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and warrants to purchase 7,632,383 shares of common stock as of December 31, 2018 and any additional shares issued in connection with acquisitions, if any, may result in material dilution to Edge's then-existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of Edge's common stock.

Edge's principal stockholders and management own a significant percentage of Edge's stock and will be able to exert significant control over matters subject to stockholder approval.

As of December 31, 2018, Edge's executive officers, directors, holders of 5% or more of Edge's capital stock and their respective affiliates beneficially owned approximately 41% of Edge's outstanding voting stock (assuming no exercise of outstanding stock options). These stockholders may be able to determine the outcome of all matters requiring

stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of Edge's organizational documents, or approval of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for Edge's common stock that Edge's then-existing stockholders may feel are in their best interest. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for Edge's common stock.

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Some provisions of Edge's charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of Edge by others, even if an acquisition would be beneficial to Edge's stockholders and may prevent attempts by Edge's stockholders to replace or remove Edge's current management.

Provisions in Edge's amended and restated certificate of incorporation, or certificate of incorporation, and amended and restated bylaws, or bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire Edge or increase the cost of acquiring Edge, even if doing so would benefit Edge's stockholders, or remove Edge's current management. These provisions include:

- authorizing the issuance of blank check preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- prohibiting cumulative voting in the election of directors, which would otherwise allow for less than a majority of stockholders to elect director candidates;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of Edge's stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders;
- establishing a staggered board of directors; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by Edge's stockholders to replace or remove Edge's current management by making it more difficult for stockholders to replace members of Edge's board of directors, who are responsible for appointing the members of Edge's management. Because Edge is incorporated in Delaware, Edge is governed by the provisions of Section 203 of the Delaware General Corporation Law, which may discourage, delay or prevent someone from acquiring Edge or merging with Edge whether or not it is desired by or beneficial to Edge's stockholders. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Any provision of Edge's amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for Edge's stockholders to receive a premium for their shares of Edge's common stock, and could also affect the price that some investors are willing to pay for Edge's common stock.

Because Edge does not anticipate paying any cash dividends on Edge's capital stock in the foreseeable future, capital appreciation, if any, will be Edge's stockholders' sole source of gain.

Edge has never declared or paid cash dividends on Edge's capital stock. Edge currently intends to retain all of Edge's future earnings, if any, to finance Edge's business. In addition, any future debt agreements may preclude Edge from paying dividends. As a result, capital appreciation, if any, of Edge's common stock will be Edge's stockholders' sole source of gain for the foreseeable future.

Edge is an emerging growth company and Edge intends to take advantage of reduced disclosure and governance requirements applicable to emerging growth companies, which could result in Edge's common stock being less attractive to investors.

Edge is an emerging growth company, as defined in the JOBS Act, and Edge intends to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in Edge's periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Edge cannot predict if investors will find Edge's common stock less attractive because Edge will rely on these exemptions. Edge may take advantage of these reporting exemptions until Edge is no longer an emerging growth company, which could potentially be for up to five years

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after the date of Edge's IPO, which occurred on October 1, 2015. If investors find Edge's common stock less attractive as a result of Edge's reduced reporting requirements, there may be a less active trading market for Edge's common stock and Edge's stock price may be more volatile. Edge may also be unable to raise additional capital as and when Edge needs it.

If Edge fails to maintain an effective system of internal control over financial reporting in the future, Edge may not be able to accurately report Edge's financial condition, results of operations or cash flows, which may adversely affect investor confidence in Edge and, as a result, the value of Edge's common stock.

The Sarbanes-Oxley Act requires, among other things, that Edge maintain effective internal controls for financial reporting and disclosure controls and procedures. Edge's annual report on Form 10-K includes a report by management on, among other things, the effectiveness of Edge's internal control over financial reporting. This assessment includes disclosure of any material weaknesses identified by Edge's management in Edge's internal control over financial reporting. A material weakness is a control deficiency, or combination of control deficiencies, in internal control over financial reporting that results in more than a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis. Section 404 of the Sarbanes-Oxley Act also generally requires an attestation from Edge's independent registered public accounting firm on the effectiveness of Edge's internal control over financial reporting. However, for as long as Edge remains an emerging growth company as defined in the JOBS Act, Edge intends to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the independent registered public accounting firm attestation requirement.

Edge's compliance with Section 404 requires that Edge incur additional accounting expense and management efforts. Edge currently does not have an internal audit group. Edge may not be able to complete any required Section 404 evaluation, testing and remediation in a timely fashion. During the evaluation and testing process, if Edge identifies one or more material weaknesses in Edge's internal control over financial reporting, Edge will be unable to assert that Edge's internal control over financial reporting is effective. Edge cannot assure Edge's stockholders that there will not be material weaknesses or significant deficiencies in Edge's internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit Edge's ability to accurately report Edge's financial condition, results of operations or cash flows. If Edge is unable to conclude that Edge's internal control over financial reporting is effective, or if Edge's independent registered public accounting firm determines Edge has a material weakness or significant deficiency in Edge's internal control over financial reporting, Edge could lose investor confidence in the accuracy and completeness of Edge's financial reports, the market price of Edge's common stock could decline, and Edge could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities. Failure to remedy any material weakness in Edge's internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict Edge's future access to the capital markets.

Edge's disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Edge's disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by Edge in reports Edge files or submits under the Exchange Act is accumulated and communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Edge believes that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of

some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in Edge's control system, misstatements or insufficient disclosures due to error or fraud may occur and not be detected.

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Risks Related to PDS

Risks Related to PDS's Business, Financial Position and Capital Requirements

PDS has a limited operating history and has never generated any product revenue.

PDS is a clinical-stage biopharmaceutical company with a limited operating history. PDS was founded in December 2005, and its operations to date have been limited to organizing its company and developing the Versamune® platform and related immunotherapy product candidates that incorporate the technology of its Versamune® platform. PDS has not yet successfully completed a large-scale, pivotal clinical trial, obtained marketing approval, manufactured Versamune® at commercial scale, or conducted sales and marketing activities that will be necessary to successfully commercialize its Versamune® products. Consequently, predictions about PDS's future success or viability may not be as accurate as they could be if it had a longer operating history or a history of successfully developing and commercializing immunotherapies.

PDS's ability to generate revenue and achieve and maintain profitability will depend upon its ability to successfully complete the development of its Versamune®-based products for the treatment of HPV-related cancers, or PDS0101, and/or complete the development of its PDS0102, PDS0103, or PDS0104 products, or, collectively with PDS0101, the Versamune® Products, for treatment of non-HPV-related cancers and other infectious diseases and to obtain the necessary regulatory approvals. PDS has never generated any product revenue, and has no immunotherapy candidate in late-stage clinical development or approved for commercial sale.

Even if PDS receives regulatory approval for the sale of the Versamune® Products, it does not know when it will begin to generate revenue from PDS0101, if at all. PDS's ability to generate revenue depends on a number of factors, including its ability to:

- set an acceptable price for Versamune®-based immunotherapy candidates, including the Versamune® Products, and obtain coverage and adequate reimbursement from third-party payors;
- establish sales, marketing, manufacturing and distribution systems;
- add operational, financial and management information systems and personnel, including personnel to support its clinical, manufacturing and planned future clinical development and commercialization efforts and operations as a public company;
- develop manufacturing capabilities for bulk materials and manufacture commercial quantities of PDS0101 and other Versamune® Products at acceptable cost levels;
- achieve broad market acceptance of PDS0101 and other Versamune® Products in the medical community and with third-party payors and consumers;
- attract and retain an experienced management and advisory team;
- launch commercial sales of PDS0101 and other Versamune® Products, whether alone or in collaboration with others; and
- maintain, expand and protect PDS's intellectual property portfolio.

Because of the numerous risks and uncertainties associated with immunotherapy development and manufacturing, PDS is unable to predict the timing or amount of increased development expenses, or when it will be able to achieve or maintain profitability, if at all. PDS's expenses could increase beyond expectations if it is required by the U.S. Food and Drug Administration, or FDA, or comparable non-U.S. regulatory authorities, to perform studies or clinical trials in addition to those it currently anticipates. Even if PDS0101 is approved for commercial sale, it anticipates incurring significant costs associated with the commercial launch of and the related commercial-scale manufacturing requirements for PDS0101 and other Versamune® Products. If PDS cannot successfully execute on any of the factors listed above, PDS's business may not succeed and your investment will be adversely affected.

PDS has incurred significant losses since its inception and expects to continue to incur significant losses for the foreseeable future and may never achieve or maintain profitability.

PDS has never generated any product revenues and it expects to continue to incur substantial and increasing losses as it continues to develop PDS0101 and other Versamune[®] Products. PDS0101 has not been approved for

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marketing in the United States and may never receive such approval. As a result, PDS is uncertain when or if it will achieve profitability and, if so, whether it will be able to sustain it. PDS's ability to generate revenue and achieve profitability is dependent on its ability to complete development, obtain necessary regulatory approvals, and have PDS0101 manufactured and successfully marketed. PDS cannot assure you that it will be profitable even if it successfully commercializes PDS0101 or other Versamune® Products. If PDS does successfully obtain regulatory approval to market PDS0101, its revenues will be dependent, in part, upon, the size of the markets in the territories for which regulatory approval is received, the number of competitors in such markets for the approved indication, and the price at which PDS can offer PDS0101. If the indication approved by regulatory authorities is narrower than PDS expects, or the treatment population is narrowed by competition, physician choice or treatment guidelines, PDS may not generate significant revenue from sales of PDS0101, even if approved. Even if PDS does achieve profitability, PDS may not be able to sustain or increase profitability on a quarterly or annual basis. If PDS fails to become and remain profitable the market price of its common stock and PDS's ability to raise capital and continue operations will be adversely affected.

PDS expects research and development expenses to increase significantly for PDS0101 and other Versamune® Products. In addition, even if PDS obtains regulatory approval, significant sales and marketing expenses will be required to commercialize PDS0101. As a result, PDS expects to continue to incur significant and increasing operating losses and negative cash flows for the foreseeable future. These losses have had and will continue to have an adverse effect on its financial position and working capital. As of September 30, 2018, PDS had an accumulated deficit of \$20.1 million.

PDS is dependent on the success of PDS0101, which is still in early-stage clinical development, and if PDS0101 does not receive regulatory approval or is not successfully commercialized, its business may be harmed.

PDS0101 is only in early clinical development, and as a consequence, it is too early to determine whether the Versamune® Products will ever be approved for commercial sale or marketable. PDS expects that a substantial portion of its efforts and expenditures over the next few years will be devoted to PDS0101 and other Versamune® Products. Accordingly, PDS's business currently depends heavily on the successful development, regulatory approval and commercialization of PDS0101. PDS0101 may not receive regulatory approval or be successfully commercialized even if regulatory approval is received. The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of PDS0101 is and will remain subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries that each have differing regulations. PDS is not permitted to market PDS0101 in the United States until it receives approval of a biologics license application, or BLA, from the FDA, or in any foreign countries until it receives the requisite approval from such countries. To date, PDS has only completed Phase 1/2A clinical trials for certain applications of PDS0101. As a result, PDS has not submitted a BLA to the FDA or comparable applications to other regulatory authorities and does not expect to be in a position to do so for the foreseeable future. Obtaining approval of a BLA is an extensive, lengthy, expensive and inherently uncertain process, and the FDA may delay, limit or deny approval of PDS0101 for many reasons, including:

- PDS may not be able to demonstrate that PDS0101 is safe and effective to the satisfaction of the FDA;
- the FDA may not agree that the completed Phase 1/2A clinical trials of PDS0101 satisfy the FDA's requirements and may require PDS to conduct additional testing;
- the results of PDS's future clinical trials may not meet the level of statistical or clinical significance required by the FDA for marketing approval;
- the FDA may disagree with the number, design, size, conduct or implementation of one or more of PDS's clinical trials;
- the contract research organizations, or CROs, that PDS retains to conduct clinical trials may take actions outside of PDS's control that materially and adversely impact its clinical trials;
-

the FDA may not find the data from PDS's preclinical studies and clinical trials sufficient to demonstrate that the clinical and other benefits of PDS0101 outweigh the safety risks;

- the FDA may disagree with PDS's interpretation of data from PDS's preclinical studies and clinical trials;

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- the FDA may not accept data generated at PDS's clinical trial sites;
- if PDS's BLA is reviewed by an advisory committee, the FDA may have difficulties scheduling an advisory committee meeting in a timely manner or the advisory committee may recommend against approval of PDS's application or may recommend that the FDA require, as a condition of approval, additional preclinical studies or clinical trials, limitations on approved labeling or distribution and use restrictions;
- the FDA may require development of a risk evaluation and mitigation strategy, or REMS, as a condition of approval;
- the FDA may identify deficiencies in PDS's manufacturing processes or facilities; or
- the FDA may change its approval policies or adopt new regulations.

PDS's independent auditor has expressed doubt about PDS's ability to continue as a going concern.

Based on its cash balances, recurring losses since inception and existing capital resources to fund planned operations for the next twelve months, PDS's independent auditor has included an explanatory paragraph in its report on PDS's financial statements as of and for the year ending December 31, 2017 expressing substantial doubt about PDS's ability to continue as a going concern. If the merger is not consummated PDS will, during 2019, require significant additional funding to continue operations. If PDS is unable to continue as a going concern, it may be forced to liquidate its assets and the values it receives for its assets in liquidation or dissolution could be significantly lower than the values reflected in its financial statements.

PDS will require additional capital to fund its operations, and if PDS fails to obtain necessary financing, it may not be able to complete the development and commercialization of PDS0101.

PDS expects to spend substantial amounts to complete the development of, seek regulatory approvals for and commercialize PDS0101. Even with the expected cash reserves of the combined company, PDS will require substantial additional capital to complete the development and potential commercialization of PDS0101 and the development of other Versamune® Products. If PDS is unable to raise capital or find appropriate partnering or licensing collaborations, when needed or on acceptable terms, if at all, it could be forced to delay, reduce or eliminate one or more of its development programs or any future commercialization efforts. In addition, attempting to secure additional financing may divert the time and attention of its management from day-to-day activities and harm its development efforts.

Based upon its current operating plan, PDS believes that the expected cash reserves of the combined company will enable it to fund its operating expenses and capital expenditure requirements into 2020. PDS's estimate as to what it will be able to accomplish is based on assumptions that may prove to be inaccurate, and it could exhaust its available capital resources sooner than is currently expected. Because the length of time and activities associated with successful development of PDS0101 is highly uncertain, PDS is unable to estimate the actual funds it will require for development and any approved marketing and commercialization activities. PDS's future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of PDS's planned clinical trials;
- the outcome, timing and cost of meeting regulatory requirements established by the FDA and other comparable foreign regulatory authorities;
- the cost of filing, prosecuting, defending and enforcing its patent claims and other intellectual property rights;
- the cost of defending potential intellectual property disputes, including any patent infringement actions brought by third parties against PDS now or in the future;
- the effect of competing technological and market developments;
- the cost of establishing sales, marketing and distribution capabilities in regions where PDS chooses to commercialize PDS0101 on PDS's own; and

- the initiation, progress, timing and results of the commercialization of PDS0101, if approved, for commercial sale.

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Additional funding may not be available on acceptable terms, or at all. If PDS is unable to raise additional capital in sufficient amounts or on terms acceptable to it, PDS may have to significantly delay, scale back or discontinue the development or commercialization of PDS0101 or potentially discontinue operations.

Raising additional funds by issuing securities may cause dilution to existing stockholders, and raising funds through lending and licensing arrangements may restrict PDS's operations or require it to relinquish proprietary rights.

PDS expects that significant additional capital will be needed in the future to continue its planned operations. Until such time, if ever, as PDS can generate substantial product revenues, PDS expects to finance its cash needs through a combination of equity offerings, debt financings, strategic alliances and license and development agreements in connection with any collaborations. PDS does not currently have any committed external source of funds. To the extent that PDS raises additional capital by issuing equity securities, PDS's existing stockholders' ownership may experience substantial dilution, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting PDS's ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends, creating liens, redeeming its stock or making investments.

If PDS raises additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, it may have to relinquish valuable rights to its technologies, future revenue streams, research programs or Versamune® Products or grant licenses on terms that may not be favorable to us. If PDS is unable to raise additional funds through equity or debt financings when needed, or through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties on acceptable terms, it may be required to delay, limit, reduce or terminate its PDS0101 development or future commercialization efforts or grant rights to develop and market other Versamune® Products that it would otherwise develop and market.

PDS's future success depends on its ability to retain executive officers and attract, retain and motivate qualified personnel.

PDS is highly dependent on its executive officers and the other principal members of the executive and scientific teams, particularly its President and Chief Executive Officer, Dr. Frank K. Bedu-Addo, its Chief Medical Officer, Dr. Lauren Wood, and its Chief Scientific Officer, Dr. Gregory L. Conn. The employment of PDS's executive officers are at-will and PDS's executive officers may terminate their employment at any time, subject to applicable notice requirements. The loss of the services of any of PDS's senior executive officers could impede the achievement of PDS's research, development and commercialization objectives. PDS does not maintain key person insurance for any executive officer or employee.

Recruiting and retaining qualified scientific, clinical, and operational personnel is also critical to PDS's success. PDS may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. PDS also experiences competition for the hiring of scientific and clinical personnel from universities and research institutions. PDS's industry has experienced an increasing rate of turnover of management and scientific personnel in recent years. In addition, PDS relies on consultants and advisors, including scientific and clinical advisors, to assist it in devising PDS's research and development and commercialization strategy. PDS's consultants and advisors may be employed by third parties and have commitments under consulting or advisory contracts with other entities that may limit their availability to advance PDS's strategic objectives. If any of these advisors or consultants can no longer dedicate a sufficient amount of time to the company, PDS's business may be harmed.

If PDS fails to obtain or maintain adequate coverage and reimbursement for PDS0101, its ability to generate revenue could be limited.

The availability and extent of reimbursement by governmental and private payors is essential for most patients to be able to afford expensive treatments. Sales of any of PDS0101 that receive marketing approval will depend substantially, both in the United States and internationally, on the extent to which the costs of PDS0101 will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers

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and other third-party payors. If reimbursement is not available, or is available only on a limited basis, PDS may not be able to successfully commercialize PDS0101. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow PDS to establish or maintain adequate pricing that will allow it to realize a sufficient return on PDS's investment.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and PDS believes the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries may cause PDS to price PDS0101 on less favorable terms than it currently anticipates. In many countries, particularly the countries of the European Union, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, PDS may be required to conduct a clinical trial that compares the cost-effectiveness of PDS0101 to other available therapies. In general, the prices of products under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for products, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that it is able to charge for PDS0101. Accordingly, in markets outside the United States, the reimbursement for its products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third-party payors, in the United States and internationally, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for it PDS0101. PDS expects to experience pricing pressures in connection with the sale of PDS0101 due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market.

PDS will need to expand its organization, and may experience difficulties in managing this growth, which could disrupt operations.

PDS's future financial performance and PDS's ability to commercialize PDS0101 and compete effectively will depend, in part, on PDS's ability to effectively manage any future growth. As of September 30, 2018, PDS had one employee and five consultants. PDS expects to hire additional employees for PDS's managerial, clinical, scientific and engineering, operational, manufacturing, sales and marketing teams. PDS may have operational difficulties in connection with identifying, hiring and integrating new personnel. Future growth would impose significant additional responsibilities on its management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, PDS's management may need to divert a disproportionate amount of its attention away from PDS's day-to-day activities and devote a substantial amount of time to managing these growth activities. PDS may not be able to effectively manage the expansion of its operations, which may result in weaknesses in its infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. PDS's expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of PDS0101. If PDS is unable to effectively manage its growth, its expenses may increase more than expected, its ability to generate and/or grow revenues could be reduced, and PDS may not be able to implement its business strategy.

Many of the other pharmaceutical companies that PDS competes against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than PDS. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may

be more appealing to high-quality candidates and consultants than what it has to offer. If PDS is unable to continue to attract and retain high-quality personnel and consultants, the rate and success at which it can select and develop PDS0101 and its business will be limited.

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PDS's employees, independent contractors, principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have an adverse effect on PDS's results of operations.

PDS is exposed to the risk that its employees and contractors, including principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in fraudulent or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or other unauthorized activities that violate the laws and regulations of the FDA and other similar regulatory bodies, including those laws that require the reporting of true, complete and accurate information to such regulatory bodies, manufacturing standards, federal and state healthcare fraud and abuse and health regulatory laws and other similar foreign fraudulent misconduct laws, or laws that require the true, complete and accurate reporting of financial information or data. Misconduct by these parties may also involve the improper use or misrepresentation of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to PDS's reputation. It is not always possible to identify and deter third-party misconduct, and the precautions PDS takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting it from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against PDS, and it is not successful in defending PDS or asserting its rights, those actions could have a significant impact on PDS's business and financial results, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, reputational harm, diminished profits and future earnings, and curtailment of its operations, any of which could adversely affect PDS's ability to operate its business and PDS's results of operations.

PDS's business and operations would suffer in the event of system failures.

PDS's computer systems and those of its service providers, including its CROs, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in PDS's or their operations, it could result in a material disruption of its development programs. For example, the loss of preclinical or clinical trial data from completed, ongoing or planned trials could result in delays in its regulatory approval efforts and significantly increase PDS's costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to data or applications, or inappropriate disclosure of personal, confidential or proprietary information, PDS could incur liability and the further development of PDS0101 could be delayed.

PDS expects to incur significant additional costs as a result of being a public company, which may adversely affect its operating results and financial condition.

PDS expects to incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act, as well as rules implemented by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or Dodd-Frank Act, the SEC, and Nasdaq. These rules and regulations are expected to increase PDS's accounting, legal and financial compliance costs and make some activities more time-consuming and costly. In addition, PDS will incur additional costs associated with its public company reporting requirements and PDS expects those costs to increase in the future. PDS also expects these rules and regulations to make it more expensive for it to maintain directors' and officers' liability insurance and PDS may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for PDS to attract and retain qualified persons to serve on its board of directors, its board committees, or as executive officers. Increases in costs incurred as a result of becoming a publicly traded company may adversely affect PDS's operating results and financial condition.

The recently enacted tax reform bill could adversely affect PDS's business and financial condition.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act, or TCJA, which significantly amends the Internal Revenue Code of 1986. The TCJA, among other things, reduces the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limits the tax deduction for interest expense to 30% of adjusted earnings, eliminates net operating loss carrybacks, imposes a one-time tax on offshore earnings

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at reduced rates regardless of whether they are repatriated, allows immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifies or repeals many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions generally referred to as orphan drugs). PDS continues to examine the effect these changes may have on PDS's business. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the TCJA is uncertain and PDS's business and financial condition could be adversely affected.

Risks Related to Clinical Development, Regulatory Approval and Commercialization

Clinical trials are very expensive, time-consuming, difficult to design and implement and involve an uncertain outcome, and if they fail to demonstrate safety and efficacy to the satisfaction of the FDA, or similar regulatory authorities, PDS will be unable to commercialize PDS0101.

PDS0101 is still in early-stage clinical development and will require extensive additional clinical testing before PDS is prepared to submit a BLA for regulatory approval for any indication or for any other treatment regime. PDS cannot predict with any certainty if or when it might submit a BLA for regulatory approval for PDS0101 or whether any such BLAs will be approved by the FDA. Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. For instance, the FDA may not agree with PDS's proposed endpoints for any clinical trial it proposes, which may delay the commencement of its clinical trials. The clinical trial process is also time-consuming. PDS estimates that the clinical trials it needs to conduct to be in a position to submit BLAs for PDS0101 will take several years to complete. Furthermore, failure can occur at any stage of the trials, and it could encounter problems that cause it to abandon or repeat clinical trials. In later stages of clinical trials, PDS0101 may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials, and the results of early clinical trials of PDS0101 therefore may not be predictive of the results of its planned Phase 1 and 2 trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials.

Moreover, preclinical and clinical data are often susceptible to multiple interpretations and analyses. Many companies that have believed their immunotherapies performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. Success in preclinical testing and early clinical trials does not ensure that later clinical trials, which involve many more subjects and different cancers than PDS has studied in Phase 1/2A clinical trials to date, and the results of later clinical trials may not replicate the results of prior clinical trials and preclinical testing.

PDS may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent its ability to receive marketing approval or commercialize PDS0101, including that:

- regulators or institutional review boards may not authorize PDS or its investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- it may have delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- clinical trials of PDS0101 may produce negative or inconclusive results, and PDS may decide, or regulators may require it, to conduct additional clinical trials or abandon product development programs;
- the number of subjects required for clinical trials of PDS0101 may be larger than PDS anticipates; enrollment in these clinical trials may be slower than PDS anticipates, or participants may drop out of these clinical trials at a higher rate than PDS anticipates;
- PDS third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to it in a timely manner, or at all;

- regulators or institutional review boards may require that PDS or PDS's investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of PDS0101 may be greater than it anticipates; and

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- the supply or quality of PDS0101 or other materials necessary to conduct clinical trials of PDS0101 may be insufficient or inadequate.

If PDS is required to conduct additional clinical trials or other testing of PDS0101 beyond those that it currently contemplates, if it is unable to successfully complete clinical trials of PDS0101 or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, PDS may:

- be delayed in obtaining marketing approval for PDS0101;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Product development costs will also increase if PDS experiences delays in testing or in receiving marketing approvals. PDS does not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which PDS may have the exclusive right to commercialize PDS0101, could allow its competitors to bring products to market before it does, and could impair its ability to successfully commercialize PDS0101, any of which may harm its business and results of operations.

Enrollment and retention of subjects in clinical trials is an expensive and time-consuming process and could be made more difficult or rendered impossible by multiple factors outside PDS's control.

PDS may encounter delays in enrolling, or be unable to enroll, a sufficient number of participants to complete any of its clinical trials. Once enrolled, PDS may be unable to retain a sufficient number of participants to complete any of its trials. Late-stage clinical trials of PDS0101 may require the enrollment and retention of large numbers of subjects. Subject enrollment and retention in clinical trials depends on many factors, including the size of the subject population, the nature of the trial protocol, the existing body of safety and efficacy data with respect to the study drug, the number and nature of competing treatments and ongoing clinical trials of competing drugs for the same indication, the proximity of subjects to clinical sites and the eligibility criteria for the study.

Furthermore, any negative results PDS may report in clinical trials of PDS0101 may make it difficult or impossible to recruit and retain participants in other clinical trials of PDS0101. Delays or failures in planned subject enrollment or retention may result in increased costs, program delays or both, which could have a harmful effect on its ability to develop PDS0101, or could render further development impractical. In addition, PDS expects to rely on CROs and clinical trial sites to ensure proper and timely conduct of its future clinical trials and, while PDS intends to enter into agreements governing their services, it will be limited in its ability to compel their actual performance in compliance with applicable regulations. Enforcement actions brought against these third parties may cause further delays and expenses related to its clinical development programs.

PDS faces significant competition from other biotechnology and pharmaceutical companies, and its operating results will suffer if it fails to compete effectively.

The biotechnology and biopharmaceutical industries are characterized by rapid technological developments and a high degree of competition. As a result, PDS0101 could become obsolete before PDS recoups any portion of its related research and development and commercialization expenses. Competition in the biopharmaceutical industry is based significantly on scientific and technological factors. These factors include the availability of patent and other protection for technology and products, the ability to commercialize technological developments and the ability to obtain governmental approval for testing, manufacturing and marketing. PDS competes with specialized

biopharmaceutical firms in the United States, Europe and elsewhere, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many biopharmaceutical companies have focused their development efforts in the human therapeutics area, including cancer. Many major

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pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions and governmental agencies and private research organizations, also compete with PDS in recruiting and retaining highly qualified scientific personnel and consultants. PDS's ability to compete successfully with other companies in the pharmaceutical field will also depend to a considerable degree on the continuing availability of capital to us.

PDS is aware of certain investigational new drugs under development or approved products by competitors that are used for the prevention, diagnosis, or treatment of certain diseases PDS has targeted for drug development. Various companies are developing biopharmaceutical products that have the potential to directly compete with PDS0101 even though their approach to may be different. The biotechnology and biopharmaceutical industries are highly competitive, and this competition comes from both biotechnology firms and from major pharmaceutical companies, including companies like Advaxis, Transgene, ISA Pharmaceuticals, Genexine, and Inovio as well as Etubics, Vaccibody, Admedus, Cel-Sci, Neo-ImmuneTech, Kite Pharma, Immune Design, Dynavax, Bavarian Nordic, Seattle Genetics, and Selecta Bioscience, each of which is pursuing cancer vaccines and/or immunotherapies. Many of these companies have substantially greater financial, marketing, and human resources than PDS does (including, in some cases, substantially greater experience in clinical testing, manufacturing, and marketing of pharmaceutical products). PDS also experiences competition in the development of its immunotherapies from universities and other research institutions and competes with others in acquiring technology from such universities and institutions.

Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. PDS's competitors may succeed in developing, acquiring or licensing, on an exclusive basis, drugs that are more effective or less costly than PDS0101.

PDS will face competition from other drugs currently approved or that will be approved in the future for the treatment of the other cancers and infectious diseases it is currently targeting. Therefore, its ability to compete successfully will depend largely on its ability to:

- develop and commercialize immunotherapies that are superior to other alternatives in the market;
- demonstrate through its clinical trials that PDS0101 is differentiated from existing and future therapies;
- attract qualified scientific, immunotherapy development and commercial personnel;
- obtain additional patent or other proprietary protection for PDS0101;
- obtain required regulatory approvals;
- obtain coverage and adequate reimbursement from, and negotiate competitive pricing with, third-party payors; and
- successfully develop and commercialize, independently or with collaborators, new applications for PDS0101 or immunotherapies.

The availability of its competitors' immunotherapies and other treatments could limit the demand, and the price it is able to charge, for PDS0101. The inability to compete with existing or subsequently introduced immunotherapies and other treatments would have an adverse impact on its business, financial condition and prospects.

Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could PDS0101 less competitive. In addition, any new immunotherapy that competes with an approved treatment must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, PDS's competitors may succeed in obtaining patent protection, discovering, developing, receiving the FDA's approval for or commercializing medicines before PDS does, which would have an adverse impact on its business and results of operations.

PDS0101 may cause adverse effects or have other properties that could delay or prevent their regulatory approval or limit the scope of any approved label or market acceptance.

Adverse events caused by PDS0101 could cause reviewing entities, clinical trial sites or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval. If clinical

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trials for PDS0101 report an unacceptable frequency or severity of adverse events, PDS's ability to obtain regulatory approval for PDS0101 may be negatively impacted.

Furthermore, if PDS0101 is approved and then causes serious or unexpected side effects, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of PDS0101 or impose restrictions on its distribution or other risk management measures;
- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;
- PDS may be required to change the way PDS0101 is administered or to conduct additional clinical trials;
- PDS could be sued and held liable for injuries sustained by patients;
- PDS could elect to discontinue the sale of PDS0101; and
- PDS's reputation may suffer.

Any of these events could prevent PDS from achieving or maintaining market acceptance of PDS0101 and could substantially increase the costs of commercialization.

If PDS is not able to obtain, or if there are delays in obtaining, required regulatory approvals, it will not be able to commercialize, or will be delayed in commercializing, PDS0101, and its ability to generate revenue will be impaired.

PDS0101 and the activities associated with its development and commercialization, including its design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain marketing approval for PDS0101 will prevent PDS from commercializing PDS0101. PDS has not received approval to market a PDS0101 from regulatory authorities in any jurisdiction. PDS has only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on CROs to assist it in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the safety and efficacy of PDS0101. Securing regulatory approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. PDS0101 may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude it obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and elsewhere, is expensive, may take many years and can vary substantially based upon a variety of factors. PDS cannot assure you that it will ever obtain any marketing approvals in any jurisdiction. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application. The FDA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application or may decide that PDS's data is insufficient for approval and require additional preclinical or other studies, and clinical trials. In addition, varying interpretations of the data obtained from preclinical testing and clinical trials could delay, limit or prevent marketing approval of PDS0101. Additionally, any marketing approval PDS ultimately obtains may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Even if PDS obtains FDA approval in the United States, it may never obtain approval for or commercialize PDS0101 in any other jurisdiction, which would limit its ability to realize each product's full market potential.

In order to market PDS0101 in a particular jurisdiction, PDS must establish and comply with numerous and varying regulatory requirements on a country-by-country basis regarding safety and efficacy. Approval by the FDA in the United States does not ensure approval by regulatory authorities in other countries or jurisdictions.

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In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country. Approval processes vary among countries and can involve additional testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and costs for PDS and require additional preclinical studies or clinical trials that could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of PDS0101 in those countries. PDS0101 is not approved for sale in any jurisdiction, including in international markets, and PDS does not have experience in obtaining regulatory approval in international markets. If PDS fails to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, PDS's target market will be reduced.

PDS's product candidates are in various stages of development.

Favorable results in pre-clinical or early stage clinical trials may not be predictive of success in later clinical trials and may not lead to commercially viable products for any of several reasons. For example, PDS's product candidates may fail to be safe and effective in clinical trials or additional pre-clinical studies, or PDS may have inadequate financial or other resources to pursue discovery and development efforts for new product candidates. PDS's product candidates will require significant additional development, clinical trials, regulatory clearances and additional investment by PDS before they can be commercialized.

Even if PDS obtains regulatory approval, it will still face extensive ongoing regulatory requirements and PDS0101 may face future development and regulatory difficulties.

Marketing of PDS0101, if approved, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, storage, recordkeeping, export, import, advertising and promotional activities for PDS0101, among other things, will be subject to extensive and ongoing requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety, efficacy and other post-marketing information and reports, establishment registration and drug listing requirements, continued compliance with current Good Manufacturing Practice, or cGMP, requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping and current GCP requirements for any clinical trials that PDS conducts post-approval. Even if marketing approval of PDS0101 is granted, the approval may be subject to limitations on the indicated uses for which PDS0101 may be marketed or to the conditions of approval. If PDS0101 receives marketing approval, an accompanying label may limit the approved use of PDS0101, which could limit sales.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety and/or efficacy of PDS0101. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if PDS promotes or otherwise markets PDS0101 for indications other than its approved indications, PDS may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act relating to the promotion of prescription drugs may lead to FDA enforcement actions and investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with PDS0101, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on manufacturing PDS0101;
- restrictions on the labeling or marketing of PDS0101;

- restrictions on PDS0101 distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters;
- withdrawal of PDS0101 from the market;

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- refusal to approve pending applications or supplements to approved applications that PDS submits;
- recalls of PDS0101;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of PDS0101;
- seizures of PDS0101; or
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of PDS0101. If PDS is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if PDS is not able to maintain regulatory compliance, it may lose any marketing approval that it may have obtained.

Even if PDS0101 receive marketing approval, it may fail to achieve market acceptance by physicians, patients, third-party payors or others in the medical community necessary for commercial success.

If PDS0101 receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. If PDS0101 does not achieve an adequate level of acceptance, PDS may not generate significant revenues and become profitable. The degree of market acceptance, if approved for commercial sale, will depend on a number of factors, including but not limited to:

- the efficacy and potential advantages compared to alternative treatments;
- effectiveness of sales and marketing efforts;
- the cost of treatment in relation to alternative treatments;
- PDS's ability to offer PDS0101 for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the willingness of the medical community to offer customers PDS0101 in addition to or in the place of other immunotherapies;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement;
- the prevalence and severity of any side effects; and
- any restrictions on the use of PDS0101 together with other medications.

Because PDS expects sales of PDS0101, if approved, to generate substantially all of its revenues for the foreseeable future, the failure of PDS0101 to achieve market acceptance would harm its business and could require it to seek additional financing sooner than it otherwise plans.

PDS may expend its limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because PDS has limited financial and managerial resources, it is initially developing PDS's lead product candidate, PDS0101 and the other Versamune® Products. As a result, PDS may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. PDS's resource allocation decisions may cause PDS to fail to timely capitalize on viable commercial products or profitable market opportunities. PDS's spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If PDS

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does not accurately evaluate the commercial potential or target market for a particular product candidate, it may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for PDS to retain sole development and commercialization rights to such product candidate.

If PDS fails to comply with state and federal healthcare regulatory laws, it could face substantial penalties, damages, fines, disgorgement, exclusion from participation in governmental healthcare programs, and the curtailment of its operations, any of which could harm its business.

Although PDS does not provide healthcare services or submit claims for third-party reimbursement, it is subject to healthcare fraud and abuse regulation and enforcement by federal and state governments, which could significantly impact its business. The laws that may affect its ability to operate include, but are not limited to:

- the Federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering, or paying remuneration, directly or indirectly, in cash or in kind, in exchange for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under federal healthcare programs such as Medicare and Medicaid;
- the FCA's civil provisions, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid or other third-party payors that are false or fraudulent; knowingly making using, or causing to be made or used, a false record or statement to get a false or fraudulent claim paid or approved by the government; or knowingly making, using, or causing to be made or used, a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the FCA's criminal provisions, which imposes criminal fines or imprisonment against individuals or entities who make or present a claim to the government knowing such claim to be false, fictitious or fraudulent;
- HIPAA, which created federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- the federal beneficiary inducement statute, which prohibits, among other things, the offering or giving of remuneration to a Medicare or Medicaid beneficiary that the person knows or should know is likely to influence the beneficiary's selection of a particular supplier of items or services reimbursable by a Federal or state governmental program;
- the federal physician sunshine requirements under the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or collectively, the Affordable Care Act, which require certain manufacturers of drugs, devices, biologics, and medical supplies to report annually to the U.S. Department of Health and Human Services information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the device industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; and state laws that require device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures.

Further, the Affordable Care Act, among other things, amended the intent requirements of the federal anti-kickback statute and certain criminal statutes governing healthcare fraud. A person or entity can now be found guilty of violating the statute without actual knowledge of the statute or specific intent to violate it. In addition, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of

the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the FCA. Moreover, while it does not submit claims and its customers make the ultimate decision on how to submit claims, from time to time, PDS may provide reimbursement guidance to its customers. If a

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government authority were to conclude that PDS provided improper advice to its customers or encouraged the submission of false claims for reimbursement, it could face action against it by government authorities. Any violations of these laws, or any action against PDS for violation of these laws, even if PDS successfully defends against it, could result in a material adverse effect on its reputation, business, results of operations and financial condition.

PDS has entered into consulting and employment arrangements with individuals, physicians and other healthcare providers. Compensation for some of these arrangements includes the provision of stock options. While PDS has worked to structure PDS's arrangements to comply with applicable laws, because of the complex and far-reaching nature of these laws, regulatory agencies may view these transactions as prohibited arrangements that must be restructured, or discontinued, or for which it could be subject to other significant penalties. PDS could be adversely affected if regulatory agencies interpret PDS's financial relationships with providers who influence the ordering of and use PDS's products to be in violation of applicable laws.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry.

Responding to investigations can be time- and resource-consuming and can divert management's attention from the business. Additionally, as a result of these investigations, healthcare providers and entities may have to agree to additional onerous compliance and reporting requirements as part of a consent decree or corporate integrity agreement. Any such investigation or settlement could increase PDS's costs or otherwise have an adverse effect on its business.

Product liability lawsuits against PDS could cause it to incur substantial liabilities and could limit the commercialization of PDS0101.

PDS faces an inherent risk of product liability exposure related to the testing of PDS0101 in human clinical trials and will face an even greater risk if it commercially sells any products that it may develop after approval. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for PDS0101 or other immunotherapies that PDS may develop;
- injury to PDS's reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend any related litigation;
- substantial monetary awards to trial subjects or patients;
- loss of revenue; and
- the inability to commercialize any products it may develop.

Although PDS maintains product liability insurance coverage in the amount of up to \$5 million per claim and in the aggregate, it may not be adequate to cover all liabilities that it may incur. PDS anticipates that it will need to increase its insurance coverage as it continues clinical trials and if it successfully commercializes any products. Insurance coverage is increasingly expensive. PDS may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

If PDS is unable to establish sales, marketing and distribution capabilities either on its own or in collaboration with third parties, it may not be successful in commercializing PDS0101, if approved.

PDS does not have any infrastructure for the sales, marketing or distribution of PDS0101, and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market PDS0101, PDS must build its sales, distribution, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. To achieve commercial success for PDS0101, PDS will need either its own, or a third party, sales and marketing organization. There are significant expenses and risks involved with creating teams for, or contracting for, sales, marketing and distribution

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capabilities. Any failure or delay in the development of its sales, marketing and distribution capabilities, either internally or in collaboration with third parties, could delay the launch of PDS0101, which would adversely affect commercialization.

PDS may be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third-party to perform marketing and sales functions, it may be unable to compete successfully against these more established companies.

If PDS obtains approval to commercialize PDS0101 outside of the United States, a variety of risks associated with international operations could harm its business.

If PDS0101 is approved for commercialization, PDS may enter into agreements with third parties to market them in certain jurisdictions outside the United States. PDS expects that it will be subject to additional risks related to international operations or entering into international business relationships, including:

- different regulatory requirements for drug approvals and rules governing drug commercialization in foreign countries;
- reduced protection for intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign reimbursement, pricing and insurance regimes;
- foreign taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential noncompliance with the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act 2010 and similar anti-bribery and anticorruption laws in other jurisdictions;
- shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

PDS has no prior experience in these areas. In addition, there are complex regulatory, tax, labor and other legal requirements imposed by both the European Union and many of the individual countries in Europe with which it will need to comply.

Recently enacted and future legislation may increase the difficulty and cost for PDS to obtain marketing approval of and commercialize PDS0101 and affect the prices PDS may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of PDS0101, restrict or regulate post-approval activities and affect PDS's ability to profitably sell PDS0101.

For example, in March 2010, Affordable Care Act was enacted to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Although the full effect of the Affordable Care Act may not yet be fully understood, the law has continued the downward pressure on pharmaceutical pricing, especially under the Medicare program, and increased the industry's regulatory burdens and operating costs.

Moreover, the Drug Supply Chain Security Act imposes obligations on manufacturers of prescription drugs in finished dosage forms. PDS has not yet adopted the significant measures that will be required to comply with

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this law. PDS is not sure whether additional legislative changes will be enacted, or whether the current regulations, guidance or interpretations will be changed, or what the impact of such changes on PDS's business, if any, may be.

PDS expects that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for immunotherapies, which could result in reduced demand for PDS0101 or additional pricing pressures.

Risks Related to PDS's Dependence on Third Parties

PDS has limited to no manufacturing, sales, marketing or distribution capability and it must rely upon third parties for such.

PDS currently has agreements with various third-party manufacturing facilities for production of PDS0101 for research and development and testing purposes. PDS depends on third-party manufacturers to supply its preclinical and clinical materials and will be reliant on a third-party manufacturer to produce PDS0101 on a commercial scale, should that product receive regulatory approval. Third-party manufacturers must be able to meet PDS's deadlines and adhere to quality standards and specifications. PDS's predominant reliance on third parties for the manufacture of PDS0101 creates a dependency that could severely disrupt PDS's research and development, clinical testing, and sales and marketing efforts if the source of such supply proves to be unreliable or unavailable. There is no assurance that any third-party manufacturers will be able to meet commercialized scale production requirements in a timely manner or in accordance with applicable standards or cGMP.

PDS intends to rely on third parties to conduct, supervise and monitor PDS's clinical trials, and if those third parties perform in an unsatisfactory manner, it may harm PDS's business.

PDS intends to rely on CROs and clinical trial sites to ensure the proper and timely conduct of its clinical trials, and PDS expects to have limited influence over their actual performance.

PDS intends to rely upon CROs to monitor and manage data for its clinical programs, as well as the execution of future nonclinical studies. PDS expects to control only certain aspects of its CROs' activities. Nevertheless, PDS will be responsible for ensuring that each of its studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and PDS's reliance on the CROs does not relieve PDS of its regulatory responsibilities.

PDS and its CROs will be required to comply with the Good Laboratory Practices and GCPs, which are regulations and guidelines enforced by the FDA and are also required by the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities in the form of International Conference on Harmonization guidelines for PDS0101. The Regulatory authorities enforce GCPs through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If PDS or its CROs fail to comply with GCPs, the clinical data generated in its clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require PDS to perform additional clinical trials before approving PDS's marketing applications. Accordingly, if PDS's CROs fail to comply with these regulations or fail to recruit a sufficient number of subjects, PDS may be required to repeat clinical trials, which would delay the regulatory approval process.

PDS's CROs will not be its employees, and PDS will not control whether or not they devote sufficient time and resources to its future clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including PDS's competitors, for whom they may also be conducting clinical trials, or other drug development activities which could harm its competitive position. PDS faces the risk of potential unauthorized disclosure or misappropriation of its intellectual property by CROs, which may reduce PDS's trade secret protection

and allow its potential competitors to access and exploit its proprietary technology. If its CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to PDS's clinical protocols or regulatory requirements or for any other reasons, its clinical trials may be extended, delayed or terminated, and it may not be able to obtain regulatory approval for, or successfully commercialize PDS0101. As a result, PDS's financial results and the commercial prospects for PDS0101 would be harmed, its costs could increase, and its ability to generate revenues could be delayed.

If PDS's relationship with these CROs terminate, it may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms. Switching or adding additional CROs involves

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substantial cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact PDS's ability to meet its desired clinical development timelines. Though PDS intends to carefully manage its relationships with PDS's CROs, there can be no assurance that it will not encounter challenges or delays in the future or that these delays or challenges will not have an adverse impact on its business, financial condition and prospects.

If PDS is unable to establish or manage strategic collaborations in the future, PDS's revenue and drug development may be limited.

PDS's strategy may include potential reliance upon strategic collaborations for marketing and commercialization of PDS0101 and other Versamune® Products. PDS also relies on strategic collaborations for research, development, marketing and commercialization for PDS0101 and other Versamune® Products. PDS has also been heavily reliant upon third party outsourcing for its clinical trials execution and production of drug supplies for use in clinical trials.

Establishing strategic collaborations is difficult and time-consuming. PDS's discussions with potential collaborators may not lead to the establishment of collaborations on favorable terms, if at all. PDS faces significant competition in seeking appropriate collaborators. Whether PDS reaches a definitive agreement for a collaboration will depend, among other things, upon its assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for PDS0101 and other Versamune® Products, the costs and complexities of manufacturing and delivering PDS0101 and other Versamune® Products to patients, the potential of competing products, the existence of uncertainty with respect to PDS's ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative immunotherapies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with PDS for PDS0101 and other Versamune® Products.

PDS's current collaborations, as well as any future new collaborations, may never result in the successful development or commercialization of PDS0101 and other Versamune® Products or the generation of sales revenue. To the extent that PDS has entered or will enter into co-promotion or other collaborative arrangements, PDS0101 and other Versamune® Products revenues are likely to be lower than if PDS directly marketed and sold any products that it develops.

Management of PDS's relationships with its collaborators will require:

- significant time and effort from PDS's management team;
- financial funding to support said collaboration;
- coordination of PDS's research and development programs with the research and development priorities of its collaborators; and
- effective allocation of PDS's resources to multiple projects.

If PDS continues to enter into research and development collaborations, PDS's success will in part depend on the performance of its collaborators. PDS will not directly control the amount or timing of resources devoted by its collaborators to activities related to PDS0101 and other Versamune® Products. PDS's collaborators may not commit sufficient resources to PDS's research and development programs or the commercialization, marketing or distribution of PDS0101 and other Versamune® Products. If any collaborator fails to commit sufficient resources, PDS's preclinical or clinical development programs related to this collaboration could be delayed or terminated. Also, PDS's collaborators may pursue existing or other development-stage products or alternative technologies in preference to those being developed in collaboration with PDS. If PDS fails to make required milestone or royalty payments to its

collaborators or to observe other obligations in its agreements with them, PDS's collaborators may have the right to terminate those agreements. Additionally, PDS's collaborators may seek to renegotiate agreements it has entered into, or may disagree with PDS about the terms and implementation of these agreements. If collaborators disagree with PDS about the terms or implementation of its agreements, PDS may face legal claims that may involve considerable expense and could negatively affect PDS's financial results.

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PDS's relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose it to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescription of PDS0101 and other Versamune® Products, if approved for marketing. PDS's future arrangements with third-party payors and customers may expose it to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which it markets, sells and distributes PDS's medicines for which it obtains marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal healthcare anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid;
- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;
- the federal transparency requirements under the Affordable Care Act requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests; and
- analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring immunotherapy manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

Risks Related to PDS's Intellectual Property

If PDS is unable to obtain and maintain patent protection for its Versamune® platform, PDS0101, or other Versamune® Products or if the scope of the patent protection obtained is not sufficiently broad, it may not be able to compete effectively in its markets.

PDS relies upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to Versamune®. PDS's success depends in large part on its ability to obtain and maintain patent protection in the United States and other countries. PDS seeks to protect its proprietary position by filing patent applications in the United States and abroad related to PDS0101. The patent prosecution process is expensive and

time-consuming, and PDS may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner.

It is also possible that PDS will fail to identify patentable aspects of its research and development output before it is too late to obtain patent protection. The patent applications that PDS owns or in-licenses may fail to result in issued patents with claims that cover PDS0101 or its applications in the United States or in other

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countries. There is no assurance that all potentially relevant prior art relating, which can invalidate a patent or prevent a patent from issuing from a pending patent application is known to PDS. Even if patents do successfully issue, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed, invalidated, or held unenforceable. Any successful challenge to these patents or any other patents owned by or licensed to PDS could deprive it of rights necessary for the successful commercialization of PDS0101 and other Versamune® Products that it may develop. Further, if PDS encounters delays in regulatory approvals, the period of time during which PDS could exclusively market PDS0101 and other Versamune® Products under patent protection could be reduced.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect PDS's rights to the same extent as the laws of the United States. For example, European patent law restricts the patentability of methods of treatment of the human body more than U.S. law does. Publications of discoveries in scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, PDS cannot know with certainty whether it was the first to make the inventions claimed in its owned or licensed patents or pending patent applications, or that it was the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of its patent rights are highly uncertain. PDS's pending and future patent applications may not result in patents being issued which protect PDS0101 or other Versamune® Products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and immunotherapies. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of PDS's patents or narrow the scope of its patent protection.

Recent patent reform legislation in the United States could increase the uncertainties and costs surrounding the prosecution of its patent applications and the enforcement or defense of its issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or Leahy-Smith Act was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The U.S. Patent Office recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of PDS's business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of PDS's patent applications and the enforcement or defense of PDS's issued patents, all of which could have an adverse effect on PDS's business and financial condition.

Moreover, PDS may be subject to a third-party pre-issuance submission of prior art to the U.S. Patent Office, or become involved in derivation, reexamination, inter partes review, post-grant review or interference proceedings challenging its patent rights or the patent rights of others. In other countries, it may be subject to or become involved in opposition proceedings challenging its patent rights or the patent rights of others. An adverse determination in any such submission or proceeding could reduce the scope of, or invalidate, its patent rights, allow third parties to commercialize PDS's technology or immunotherapies and compete directly with PDS, without payment to it, or result in its inability to manufacture or commercialize PDS0101 without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by its patents and patent applications is threatened, it could dissuade companies from collaborating with PDS to license, develop or commercialize PDS0101 and other Versamune® Products.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and its owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit

its ability to stop others from using or commercializing similar or identical technology and immunotherapies, or limit the duration of the patent protection of its technology and immunotherapies. Moreover, patents have a limited lifespan. In the United States and other countries, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however, the life of a patent, and the protection it affords, is limited. Without patent protection for PDS0101 and other Versamune® Products, PDS may be open to competition from generic versions of PDS0101 or other similar products using the PDS

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technology. Given the amount of time required for the development, testing and regulatory review of new immunotherapy candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, PDS's owned and licensed patent portfolio may not provide it with sufficient rights to exclude others from commercializing immunotherapies similar or identical to PDS's.

PDS may be involved in lawsuits to protect or enforce its patents, the patents of its licensors or its other intellectual property rights, which could be expensive, time consuming and unsuccessful.

Competitors may infringe or otherwise violate PDS's patents, the patents of its licensors or its other intellectual property rights. To counter infringement or unauthorized use, PDS may be required to file legal claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of PDS's or its licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that such patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of PDS's patents at risk of being invalidated or interpreted narrowly and could put PDS's patent applications at risk of not issuing. The initiation of a claim against a third-party may also cause the third-party to bring counter claims against PDS such as claims asserting that its patents are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement or lack of statutory subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant material information from the USPTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar validity claims before the USPTO in post-grant proceedings such as inter partes review, or post-grant review, or oppositions or similar proceedings outside the United States, in parallel with litigation or even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. PDS cannot be certain that there is no invalidating prior art, of which it and the patent examiner were unaware during prosecution. For the patents and patent applications that PDS has licensed, it may have limited or no right to participate in the defense of any licensed patents against challenge by a third-party. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, PDS would lose at least part, and perhaps all, of any future patent protection on PDS0101 and other Versamune® Products. Such a loss of patent protection could harm its business.

PDS may also face claims that its products infringe patents that its competitors hold. Claims for alleged infringement and any resulting lawsuit, if successful, could subject PDS to significant liability for damages and invalidations of PDS's proprietary rights. Any such lawsuit, regardless of its success, would likely be time consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation could also force PDS to do one or more of the following: (a) stop selling PDS's products; (b) obtain a license(s), from the owner of any asserted intellectual property, to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; or (c) redesign PDS's products to avoid using the relevant technology.

PDS may not be able to prevent, alone or with its licensors, misappropriation of its intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. PDS's business could be harmed if in litigation the prevailing party does not offer it a license on commercially reasonable terms. Any litigation or other proceedings to enforce its intellectual property rights may fail, and even if successful, may result in substantial costs and distract its management and other employees.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of PDS's confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have an

adverse effect on the price of its common stock.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing PDS's ability to protect the Versamune® platform, PDS0101 and other Versamune® Products.

The United States has recently enacted and implemented wide-ranging patent reform legislation. The United States Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations.

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In addition to increasing uncertainty with regard to PDS's ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken PDS's ability to obtain new patents or to enforce patents that it has licensed or that it might obtain in the future.

PDS may not be able to protect its intellectual property rights throughout the world, which could impair its business.

Filing, prosecuting and defending patents covering PDS0101 throughout the world would be prohibitively expensive. Competitors may use its technologies in jurisdictions where it has not obtained patent protection to develop their own immunotherapies and, further, may export otherwise infringing immunotherapies to territories where PDS may obtain patent protection, but where patent enforcement is not as strong as that in the United States. These immunotherapies may compete with PDS0101 in jurisdictions where PDS does not have any issued or licensed patents and any future patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

PDS's reliance on third parties requires it to share its trade secrets, which increases the possibility that a competitor will discover them or that its trade secrets will be misappropriated or disclosed.

PDS seeks to protect its proprietary technology in part by entering into confidentiality agreements with third parties and, if applicable, material transfer agreements, consulting agreements or other similar agreements with its advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose PDS's confidential information, including its trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by its competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that PDS's proprietary position is based, in part, on its know-how and trade secrets, a competitor's discovery of PDS's trade secrets or other unauthorized use or disclosure would impair its competitive position and may have an adverse effect on its business and results of operations.

In addition, these agreements typically restrict the ability of its advisors, employees, third-party contractors and consultants to publish data potentially relating to its trade secrets, although PDS's agreements may contain certain limited publication rights. Despite its efforts to protect its trade secrets, its competitors may discover its trade secrets, either through breach of PDS's agreements with third parties, independent development or publication of information by any of its third-party collaborators. A competitor's discovery of PDS's trade secrets would impair PDS's competitive position and have an adverse impact on PDS's business.

Risks Related to the Combined Company

In determining whether you should approve the issuance of shares of Edge common stock and other matters related to the merger, as the case may be, you should carefully read the following risk factors in addition to the risks described above, which will also apply to the combined company.

The combined company's stock price is expected to be volatile, and the market price of its common stock may drop following the merger.

The market price of the combined company's common stock following the merger could be subject to significant fluctuations following the merger. Market prices for securities of early-stage pharmaceutical, biotechnology and other

life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of the combined company's common stock to fluctuate include:

- the ability of the combined company or its partners to develop product candidates and conduct clinical trials that demonstrate such product candidates are safe and effective;
- the ability of the combined company or its partners to obtain regulatory approvals for product candidates, and delays or failures to obtain such approvals;
- failure of any of the combined company's product candidates to demonstrate safety and efficacy, receive regulatory approval and achieve commercial success;

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- failure by the combined company to maintain its existing third-party license, manufacturing and supply agreements;
- failure by the combined company or its licensors to prosecute, maintain, or enforce its intellectual property rights;
- changes in laws or regulations applicable to the combined company's product candidates;
- any inability to obtain adequate supply of product candidates or the inability to do so at acceptable prices;
- adverse regulatory authority decisions;
- introduction of new or competing products by its competitors;
- failure to meet or exceed financial and development projections the combined company may provide to the public;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic partnerships, joint ventures, or capital commitments by the combined company or its competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and the combined company's ability to obtain intellectual property protection for its technologies;
- additions or departures of key personnel;
- significant lawsuits, including intellectual property or stockholder litigation;
- if securities or industry analysts do not publish research or reports about the combined company, or if they issue an adverse or misleading opinions regarding its business and stock;
- changes in the market valuations of similar companies;
- general market or macroeconomic conditions;
- sales of its common stock by the combined company or its stockholders in the future;
- trading volume of the combined company's common stock;
- adverse publicity relating to the combined company's markets generally, including with respect to other products and potential products in such markets;
- changes in the structure of health care payment systems; and
- period-to-period fluctuations in the combined company's financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of the combined company's common stock.

In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm the combined company's profitability and reputation.

Edge and PDS do not anticipate that the combined company will pay any cash dividends in the foreseeable future.

The current expectation is that the combined company will retain its future earnings, if any, to fund the development and growth of the combined company's business. As a result, capital appreciation, if any, of the common stock of the combined company will be your sole source of gain, if any, for the foreseeable future.

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Future sales of shares by existing stockholders could cause the combined company's stock price to decline.

If existing stockholders of Edge and PDS sell, or indicate an intention to sell, substantial amounts of the combined company's common stock in the public market after legal restrictions on resale discussed in this proxy statement/prospectus/information statement lapse, the trading price of the common stock of the combined company could decline. Based on shares outstanding as of February 8, 2019 and shares expected to be issued upon the closing of the merger, the combined company is expected to have outstanding a total of approximately 101 million shares of common stock (prior to giving effect to the proposed reverse stock split) immediately following the closing of the merger. Approximately 36 million of such shares of common stock (prior to giving effect to the proposed reverse stock split) will be freely tradable, without restriction, in the public market. Approximately 65 million of such shares of common stock (prior to giving effect to the proposed reverse stock split) will be held by directors, executive officers of the combined company and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act and various vesting agreements.

If the ownership of the combined company common stock is highly concentrated, it may prevent you and other stockholders from influencing significant corporate decisions and may result in conflicts of interest that could cause the combined company stock price to decline.

Executive officers and directors of the combined company and their affiliates are expected to beneficially own or control approximately 59.57% of the outstanding shares of the combined company common stock following the closing of the merger. Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of the combined company assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of the combined company, even if such a change of control would benefit the other stockholders of the combined company. The significant concentration of stock ownership may adversely affect the trading price of the combined company's common stock due to investors' perception that conflicts of interest may exist or arise.

Because the merger will result in an ownership change under Section 382 of the Code for Edge, pre-merger U.S. net operating loss carryforwards and certain other tax attributes will be subject to limitations.

As of December 31, 2017, Edge had federal and state net operating loss carryforwards, or NOLs, of \$101.5 million and \$31.9 million, respectively, due to prior period losses. If a corporation undergoes an ownership change within the meaning of Section 382 of the Code, the corporation's U.S. net operating loss carryforwards and certain other tax attributes arising from before the ownership change are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation's equity ownership by certain stockholders that exceeds fifty percentage points over a rolling three-year period. Similar rules may apply under state and foreign tax laws. Edge believes that it may have already undergone one or more ownership changes prior to the merger. The merger will also result in an ownership change for Edge and, accordingly, Edge's U.S. net operating loss carryforwards and certain other tax attributes will be subject to limitations on their use after the merger.

Changes in tax laws and regulations or in the combined company's operations may impact the combined company's effective tax rate and may adversely affect the combined company's business, financial condition and operating results.

Changes in tax laws in any jurisdiction in which combined company operates, or adverse outcomes from any tax audits that the combined company may be subject to in any such jurisdictions, could result in an unfavorable change in Edge's effective tax rate, which could adversely affect Edge's business, financial condition, and operating results.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act, or the Tax Act. The changes included in the Tax Act are broad and complex. The impact of these changes on how the combined company's earnings are taxed include, among other items, (i) reducing the U.S. federal corporate tax rate from 35% to 21%; (ii) repealing the corporate alternative minimum tax and changing how existing credits can be utilized; (iii) temporarily providing for elective immediate expensing for certain depreciable property; (iv) creating a new limitation on the deductibility of interest expense; and (v) changing rules related to uses and limitations of net operating losses created in tax

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years beginning after December 31, 2017. Edge and PDS continue to evaluate the Tax Act and its impact on the combined company's businesses. It is possible that the Tax Act will be subject to further changes either in a technical corrections bill or entirely new legislation. The overall impact of the Tax Act also depends on the future interpretations and regulations that may be issued by U.S. tax authorities. Edge expects there will be further guidance provided by these authorities potentially having a material adverse effect on the combined company's financial condition or results of operations. The impact of broad proposals or of regulatory issuances on the combined company's business can vary substantially depending upon the specific changes or further guidance made and how the changes or guidance are implemented by the authorities.

Anti-takeover provisions under Delaware law could make an acquisition of the combined company more difficult and may prevent attempts by the combined company stockholders to replace or remove the combined company management.

Because the combined company will be incorporated in Delaware, it is governed by the provisions of Section 203 of the DGCL, which prohibits stockholders owning in excess of 15% of the outstanding combined company voting stock from merging or combining with the combined company. Although Edge and PDS believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with the combined company's board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by the combined company's stockholders to replace or remove then current management by making it more difficult for stockholders to replace members of the board of directors, which is responsible for appointing the members of management.

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CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus/information statement and the documents incorporated by reference into this proxy statement/prospectus/information statement contain forward-looking statements. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements should not be relied upon as predictions of future events as neither Edge nor PDS can assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including anticipates, believes, continue, could, design, estimates, expects, intends, may, potentially, predict, pro forma seeks, should, will or the negative of these words and phrases or other variations of these words and phrases or comparable terminology.

All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, forward-looking statements include any statements of the plans, strategies and objectives of management for future operations, including the execution of integration and restructuring plans and the anticipated timing of filings; any statements concerning proposed new products or developments; any statements regarding future economic conditions or performance; statements of belief and any statement of assumptions underlying any of the foregoing. Forward-looking statements may also include any statements of the plans, strategies and objectives of management with respect to the approval and the closing of the merger, Edge's ability to solicit a sufficient number of proxies to approve the merger and other matters related to the closing of the merger.

For a discussion of the factors that may cause Edge, PDS or the combined company's actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risk associated with the ability of Edge and PDS to complete the merger and the effect of the merger on the business of Edge, PDS and the combined company, see the section titled Risk Factors.

These forward-looking statements include, but are not limited to, statements concerning the following:

- the expected benefits of and potential value created by the merger for the stockholders of Edge and PDS;
- likelihood of the satisfaction of certain conditions to the completion of the merger and whether and when the merger will be consummated;
- Edge's ability to control and correctly estimate its operating expenses and its expenses associated with the merger;
- any statements of the plans, strategies and objectives of management for future operations, including the execution of integration plans and the anticipated timing of filings;
- any statements of plans to develop and commercialize additional products;
- any statements concerning the attraction and retention of highly qualified personnel;
- any statements concerning the ability to protect and enhance the combined company's products and intellectual property;
- any statements concerning developments and projections relating to the combined company's competitors or industry;
- any statements concerning the combined company's financial performance;
- any statements regarding expectations concerning Edge's or PDS's relationships and actions with third parties; and
- future regulatory, judicial and legislative changes in Edge's or PDS's industry.

You should not rely upon forward-looking statements as predictions of future events. Neither Edge nor PDS can assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur.

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In addition, statements that Edge believes, PDS believes and similar statements reflect the beliefs and opinions on the relevant subject of Edge, PDS or the combined company, as applicable. These statements are based upon information available as of the date of this proxy statement/prospectus/information statement, and while Edge, PDS or the combined company, as applicable, believes such information forms a reasonable basis for such statements, such information may be limited or incomplete, and such statements should not be read to indicate that Edge, PDS or the combined company has conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, the results of Edge, PDS or the combined company could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus/information statement are current only as of the date on which the statements were made. Except as required by law, neither Edge nor PDS undertakes any obligation to update publicly any forward-looking statements for any reason after the date of this proxy statement/prospectus/information statement or to conform these statements to actual results or to changes in expectations, even if new information becomes available in the future.

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THE SPECIAL MEETING OF EDGE STOCKHOLDERS

Date, Time and Place

The special meeting of Edge stockholders will be held on March 14, 2019, at 300 Connell Drive, Suite 4000, Berkeley Heights, NJ 07922 commencing at 9:00 a.m. local time. Edge is sending this proxy statement/prospectus/information statement to its stockholders in connection with the solicitation of proxies by the Edge Board for use at the Edge special meeting and any adjournments or postponements of the special meeting. This proxy statement/prospectus/information statement is first being furnished to stockholders of Edge on or about February 8, 2019.

Purposes of the Edge Special Meeting

The purposes of the Edge special meeting are:

1. To consider and vote upon a proposal to approve the issuance of shares of Edge common stock pursuant to the Agreement and Plan of Merger and Reorganization, dated as of November 23, 2018, by and among Edge, Echos Merger Sub, Inc. and PDS, a copy of which is attached as *Annex A-I* to this proxy statement/prospectus/information statement, as amended by Amendment No. 1 thereto on January 24, 2019, a copy of which is attached as *Annex A-II*, or the Merger Agreement, or the Stock Issuance Proposal; To consider and vote upon the amendment to the certificate of incorporation of Edge to effect a reverse stock split of Edge common stock, at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS or, if the Stock Issuance Proposal is not approved, solely by the Edge Board following the special meeting, the form of which is attached as *Annex B* to this proxy statement/prospectus/information statement, or the Reverse Stock Split Proposal; and
2. To consider and vote upon approving Amended and Restated Edge Therapeutics, Inc. 2014 Equity Incentive Plan, or the Restated Plan, the form of which is attached as *Annex C* to this proxy statement/prospectus/information statement, which, among other items, increases the number of shares Edge common stock available for grant under Edge's equity-based incentive compensation program, or the Equity Incentive Plan Proposal. If the Stock Issuance Proposal is not approved, the Equity Incentive Plan Proposal will be automatically withdrawn.
- 3.

Recommendation of the Edge Board

- The Edge Board has determined and believes that the issuance of shares of Edge common stock pursuant to the Merger Agreement is in the best interests of Edge and its stockholders and has approved such items. The Edge Board unanimously recommends that Edge stockholders vote **FOR** the Stock Issuance Proposal as described in this proxy statement/prospectus/information statement.
The Edge Board has determined and believes that it is advisable to, and in the best interests of, Edge and its stockholders to approve the amendment to the certificate of incorporation of Edge effecting a reverse stock split at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS or, if the Stock Issuance Proposal is not approved by Edge stockholders, determined solely by the Edge Board following the special meeting as described in this proxy statement/prospectus/information statement. The Edge Board unanimously recommends that Edge stockholders vote **FOR** the Reverse Stock Split Proposal as described in this proxy statement/prospectus/information statement.
- The Edge Board has determined and believes that it is advisable to, and in the best interests of, Edge and its stockholders to approve the Restated Plan. The Edge Board unanimously recommends that Edge stockholders vote **FOR** the Equity Incentive Plan Proposal as described in this proxy statement/prospectus/information statement.

Record Date and Voting Power

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Only holders of record of Edge common stock at the close of business on the record date, January 30, 2019, are entitled to notice of, and to vote at, the Edge special meeting. At the close of business on the record date, 31,509,822 shares of Edge common stock were issued and outstanding. Each share of Edge common stock

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entitles the holder thereof to one vote on each matter submitted for stockholder approval. See the section titled Principal Stockholders of Edge for information regarding persons known to the management of Edge to be the beneficial owners of more than 5% of the outstanding shares of Edge common stock.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus/information statement is solicited on behalf of the Edge Board for use at the Edge special meeting.

If you are a stockholder of record of Edge as of the record date referred to above, you may vote in person at the Edge special meeting or vote by proxy using the enclosed proxy card. Whether or not you plan to attend the Edge special meeting, Edge urges you to vote by proxy to ensure your vote is counted. You may still attend the Edge special meeting and vote in person if you have already voted by proxy. As a stockholder of record you are entitled:

- to vote in person, come to the Edge special meeting and Edge will give you a ballot when you arrive.
- to vote using the proxy card, simply mark, sign and date your proxy card and return it promptly in the postage-paid envelope provided. If you return your signed proxy card to Edge before the Edge special meeting, Edge will vote your shares as you direct.
- to vote on the Internet, go to the website on the proxy card or voting instruction form to complete an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m. Eastern Time on March 13, 2019 to be counted.

If your Edge shares are held by your broker as your nominee, that is, in street name, the enclosed voting instruction card is sent by the institution that holds your shares. Please follow the instructions included on that proxy card regarding how to instruct your broker to vote your Edge shares. If you do not give instructions to your broker, your broker can vote your Edge shares with respect to discretionary items but not with respect to non-discretionary items. Discretionary items are proposals considered routine under the rules of the Nasdaq Global Select Market on which your broker may vote shares held in street name in the absence of your voting instructions. On non-discretionary items for which you do not give your broker instructions, the Edge shares will be treated as broker non-votes. It is anticipated that the Stock Issuance Proposal and Equity Incentive Plan Proposal will be non-discretionary items and the Reverse Stock Split Proposal will be a discretionary item.

All properly executed proxies that are not revoked will be voted at the Edge special meeting and at any adjournments or postponements of the Edge special meeting in accordance with the instructions contained in the proxy. If a holder of Edge common stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted:

- FOR the Stock Issuance Approval to approve the issuance of shares of Edge common stock pursuant to the Merger Agreement;
- FOR the Reverse Stock Split Proposal to approve the amendment to the certificate of incorporation of Edge effecting a reverse stock split at a ratio in the range of 5-for-1 to 25-for-1, with such specific ratio to be mutually agreed upon by Edge and PDS or, if the Stock Issuance Proposal is not approved by Edge stockholders, determined solely by the Edge Board following the special meeting; and
- FOR the Equity Incentive Plan Proposal to approve the Restated Plan.

Edge stockholders of record, other than those Edge stockholders who have executed support agreements, may change their vote at any time before their proxy is voted at the Edge special meeting in one of three ways. First, a stockholder of record of Edge can send a written notice to the Secretary of Edge stating that the stockholder would like to revoke its proxy. Second, a stockholder of record of Edge can submit new proxy instructions either on a new proxy card or via the Internet. Third, a stockholder of record of Edge can attend the Edge special meeting and vote in person.

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Attendance alone will not revoke a proxy. If an Edge stockholder of record or a stockholder who owns Edge shares in street name has instructed a broker to vote its shares of Edge common stock, the stockholder must follow directions received from its broker to change those instructions.

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The presence, in person or represented by proxy, at the Edge special meeting of the holders of a majority of the shares of Edge common stock outstanding and entitled to vote at the Edge special meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum.

Proposal Number	Proposal Description	Vote Required for Approval	Effect of Abstentions	Effect of Broker Non-Votes
1	Stock Issuance Proposal	FOR votes from the holders of a majority of shares properly cast at a meeting at which a quorum is present	Against	None
2	Reverse Stock Split Proposal	FOR votes from the holders of a majority of outstanding shares	Against	Against
3	Equity Incentive Plan Proposal	FOR votes from the holders of a majority of shares properly cast at a meeting at which a quorum is present	Against	None

Except as stated below, no Edge Proposal is contingent upon any other Edge Proposal. Therefore, assuming all other closing conditions have been either satisfied or waived, the merger will be consummated even if the Reverse Stock Split Proposal is not approved by Edge's stockholders. However, if Edge's stockholders do not approve the Reverse Stock Split Proposal to effect the reverse stock split upon the closing of the merger, Edge has been advised that The Nasdaq Stock Market LLC will commence delisting proceedings immediately following the closing of the merger. In such event, then pursuant to the Merger Agreement, the combined company's board of directors will immediately call for a second special meeting following the closing of the merger and request the stockholders of the combined company to approve a reverse stock split that will allow the combined company to remain in compliance with the listing requirements of The Nasdaq Stock Market LLC. The combined company is obligated to use commercially reasonable efforts to take such steps as necessary to ensure the continued listing of the combined company's common stock on the Nasdaq Capital Market following the closing of the merger. If the Stock Issuance Proposal is not approved but the Reverse Stock Approval is approved, the Edge Board may nevertheless authorize a reverse split of its common stock at a ratio in the range of 5-for-1 to 25-for-1 as determined solely by the Edge Board in order to satisfy Edge's continued listing requirements on the Nasdaq Global Select Market. However, if the Merger is not consummated, the Equity Incentive Plan Proposal will be automatically withdrawn.

As of February 8, 2019, the directors and executive officers of Edge owned approximately 13.1% of the outstanding shares of Edge common stock entitled to vote at the Edge special meeting. The directors and executive officers of Edge owning these shares are subject to support agreement to vote all shares of Edge common stock owned by them as of the record date in favor of the issuance of shares of Edge common stock in the merger pursuant to the Merger Agreement and the reverse stock split. As of February 8, 2019, Edge is not aware of any affiliate of PDS owning any shares of Edge common stock entitled to vote at the Edge special meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Edge may solicit proxies from Edge stockholders by personal interview, telephone, telegram, email or otherwise. Edge and PDS will share equally the costs of printing and filing this proxy statement/prospectus/information statement and proxy card. Arrangements will

also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Edge common stock for the forwarding of solicitation materials to the beneficial owners of Edge common stock. Edge and PDS will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Edge has engaged D.F. King & Co, Inc. to assist in the solicitation of proxies and provide related advice and informational support, for a service fee, plus customary disbursements, which are not expected to exceed \$15,000 in total, which amount shall be borne equally by Edge and PDS.

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Other Matters

As of the date of this proxy statement/prospectus/information statement, the Edge Board does not know of any business to be presented at the Edge special meeting other than as set forth in the notice accompanying this proxy statement/prospectus/information statement. If any other matters should properly come before the Edge special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

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THE MERGER

This section and the section titled "The Merger Agreement" in this proxy statement/prospectus/information statement describe the material aspects of the merger, including the Merger Agreement. While Edge and PDS believe that this description covers the material terms of the merger and the Merger Agreement, it may not contain all of the information that is important to you. You should read carefully this entire proxy statement/prospectus/information statement for a more complete understanding of the merger and the Merger Agreement, including the Merger Agreement attached as Annex A, the opinion of Piper Jaffray & Co., attached as Annex D, and the other documents to which you are referred herein. See the section titled "Where You Can Find More Information" in this proxy statement/prospectus/information statement.

Background of the Merger

Edge is a clinical-stage biotechnology company that seeks to discover, develop and commercialize novel, hospital-based therapies capable of transforming treatment paradigms for the management of acute, life-threatening conditions.

The Edge Board, and management, regularly review Edge's operating and strategic plans in an effort to enhance stockholder value. This review involves, among other things, discussions of opportunities and risks associated with Edge's product candidates, development programs, financial condition and market, as well as consideration of strategic alternatives and options available to Edge.

The terms of the Merger Agreement are the result of extensive arm's-length negotiations among members of the Transactions Committee, Edge's management team, and the management team of PDS with the assistance of their respective advisors and under the guidance of each company's board of directors, after an extensive strategic review process. From the beginning, Edge followed a careful process assisted by experienced outside financial, medical, scientific and legal advisors to rigorously examine potential transactions and transaction candidates in a broad and inclusive manner. The following is a summary of the background of the process undertaken by Edge, and the identification and evaluation of strategic alternatives and the negotiation of the Merger Agreement, including the circumstances surrounding Edge's decision to review strategic alternatives available to it. The following chronology does not purport to catalogue every conversation among representatives of Edge, PDS and other parties. Unless otherwise noted, all meetings described below were held telephonically.

On March 27, 2018, Edge learned that the pre-specified interim analysis performed on data from the Day 90 visit of the first 210 subjects randomized and treated in the Phase 3 NEWTON 2 study of EG-1962 in adults with aneurysmal subarachnoid hemorrhage, or aSAH, demonstrated a low probability of achieving a statistically-significant difference compared to the standard of care in the study's primary endpoint, if the study were to be fully enrolled. The independent Data Monitoring Committee, or DMC, for NEWTON 2 recommended that the study be stopped based on its conclusion that the study had a low probability of meeting its primary endpoint. Favorable outcome was defined as a score of 6 to 8 on the extended Glasgow Outcome Scale, or GOSE, at Day 90. The DMC also reported that there were no safety concerns attributed to EG-1962. Based on the DMC recommendation, Edge decided to discontinue the NEWTON 2 study.

On March 27, 2018, the Edge Board held a telephonic meeting. Also participating in the meeting were members of Edge management and representatives of outside corporate counsel, Dechert LLP, or Dechert. The participants discussed the results of the NEWTON 2 interim analysis, as conducted by the DMC, and related matters, including the decision to terminate the NEWTON 2 trial. The decision to terminate the NEWTON 2 trial was publicly announced before the market opened on March 28, 2018.

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On April 2, 2018, an Edge employee (who was not an executive officer of Edge) received an email, which the employee then forwarded to Edge management, from a third-party individual with experience in the biopharmaceutical industry and an investor in PDS, who suggested several companies that Edge might want to consider as potential strategic partners, including PDS. After considering the list and identifying PDS as a potentially attractive target, introductions were made and, on April 6, 2018, Frank K. Bedu-Addo, Ph.D., President and Chief Executive Officer of PDS and Brian Leuthner, President and Chief Executive Officer of Edge, exchanged emails indicating a mutual desire to speak.

On April 12, 2018, certain members of the Edge management team and the PDS management team had an introductory telephone call, during which PDS provided an overview of PDS's business.

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On April 17, 2018, the Edge Board held a regularly scheduled meeting. At the meeting:

- The Edge Board made a determination that it was in the best interest of Edge that it undertake a review of strategic alternatives, including an acquisition of another company, acquisitions or in-licensing of products or product candidates, technologies or other assets, the sale of all or substantially all of the assets of Edge, a sale of stock, a strategic merger or other business combination transaction or other transaction between Edge and a third party, each such option, a Strategic Alternative.

- The Edge Board delegated to a committee, or the Transactions Committee, as a committee of convenience, the authority to oversee Edge's assessment of Strategic Alternatives, which included the authority, working as appropriate with management of Edge, to (i) select, seek and obtain advice from investment bankers, financial advisors, legal counsel and such other consultants, advisors and agents, or Advisors, as the Transactions Committee deemed necessary to evaluate Strategic Alternatives, with all of the fees and expenses of such Advisors to be paid by Edge; (ii) solicit transaction proposals with regard to any Strategic Alternatives that it deemed necessary, appropriate or desirable to pursue, (iii) review and evaluate, and, if it determined appropriate, with the assistance from its Advisors, negotiate the terms and conditions of any transaction proposal received by Edge, (iv) determine, with assistance from its Advisors, whether any transaction proposal that may be received by Edge was advisable and in the best interests of Edge and, if appropriate, as determined by the Transactions Committee and its Advisors based upon the nature of the transaction, was fair to and in the best interests of Edge's stockholders, (v) endeavor to keep the Edge Board generally apprised on the activities of the Transactions Committee, except to the extent that the fiduciary duties of the Transactions Committee dictated otherwise, (vi) recommend to the full board of directors whether or not Edge should proceed with any specific transaction proposal or other Strategic Alternative and (vii) if the Transactions Committee deemed appropriate, request from the Edge Board the authority to take such other action related to or arising in connection with any such transaction proposal or Strategic Alternative as the Transactions Committee deemed necessary, appropriate or advisable, including, without limitation, the solicitation of alternative transactions and the evaluation of other Strategic Alternatives to any transaction proposal.

- The Edge Board appointed Dr. Sol Barer, chairman of the Edge Board, Rosemary Crane and Dr. Robert Spiegel as members of the Transactions Committee, with Dr. Barer serving as chairman of the Transactions Committee. Each of the members of the Transactions Committee is an independent director as defined in the rules and regulations promulgated by the Securities and Exchange Commission and the Nasdaq Stock Market.

- The Edge Board determined that it was advisable to engage an investment banker to the Edge Board and the Transactions Committee to assist in the evaluation of Strategic Alternatives and any other transaction proposal which may be received by Edge. The Transactions Committee identified certain investment bankers and asked Edge management to identify additional bankers and provide an assessment of their capabilities for presentation to, and consideration by, the Transactions Committee.

During the course of the Edge Board's discussion, Dechert advised the Edge Board of its fiduciary duties applicable to a strategic review process. The foregoing process to identify and evaluate Strategic Alternatives available to Edge ultimately resulted in the execution of the Merger Agreement with PDS.

On April 20, 2018, the Transactions Committee held its first meeting. At the meeting, management discussed its review of potential investment banks for consideration by the Transactions Committee to serve as the Edge Board's and the Transactions Committee's financial advisor in connection with Edge's review of strategic alternatives. The Transactions Committee selected Piper Jaffray to advise the Edge Board and the Transactions Committee. In selecting Piper Jaffray, the Transactions Committee gave weight to, among other things, Piper Jaffray's deep experience in the industry and relevant transactions, and the experience that members of the Edge Board had previously had with Piper Jaffray in other circumstances, none of which were deemed to give rise to any potential conflicts of interest except as more fully set forth in The Merger—Opinion of the Financial Advisor to the Edge Board.

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On April 20, 2018 and May 5, 2018, Mr. Andrew Saik, Chief Financial Officer of Edge, and Mr. Michael King, Chief Financial Officer of PDS, engaged in telephonic conversations about potential interest in exploring a transaction between the two companies.

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On April 23, 2018, Dr. Bedu-Addo and Mr. King made a presentation about PDS to Edge management at Edge's offices. Members of Edge management who participated in this and/or subsequent due diligence meetings with PDS included: Brian Leuthner, President and Chief Executive Officer; Andrew Saik, Chief Financial Officer; Brad Middlekauff, Senior Vice President, General Counsel and Secretary; Bert Marchio, Chief Accounting and Administrative Officer; Herb Faleck, Chief Medical Officer; Alyssa Wyant, Senior Vice President, Regulatory Affairs; Ming Leung, Director, Program Management; and Paul D'Angio, Head, Technical Operations and Precisa Development.

On April 27, 2018, representatives of each of Piper Jaffray and Dechert and certain representatives of Edge management had a meeting to organize the search for Strategic Alternatives, consistent with the direction of the Edge Board and the Transactions Committee.

On April 30, 2018, Edge publicly announced that:

- its board of directors was conducting a comprehensive review of Strategic Alternatives focused on maximizing Edge stockholder value;
- in conjunction with the exploration of Strategic Alternatives, Edge intended to streamline its operations in order to preserve its cash resources;
- Edge had retained Piper Jaffray to act as its financial advisor to assist with the review process;
- potential Strategic Alternatives that might be explored or evaluated as part of this review included, but were not limited to, an acquisition, merger, business combination or other transaction involving Edge; and
- there was no defined timeline for completion of the review process.

Beginning on April 30, 2018, the Transactions Committee and members of Edge's management, with assistance from representatives of Piper Jaffray, identified and evaluated 131 potential candidates for a transaction. Members of Edge management, with the assistance of representatives of Piper Jaffray, narrowed that list to 76 companies that best matched Edge's selected screening criteria. The screening criteria included an evaluation of each party's financing risk at closing; each party's product pipeline; upcoming milestones with respect to each party's product candidates likely to occur after a closing that may create greater value for stockholders; the experience and expertise of each party's management and scientific teams; each party's investor base; each party's ability to maintain Edge's Nasdaq listing and operate a public company after closing; the relative potential valuations of Edge and each party; and the party's ability to effectively fund operations after a closing. Between May 4 and June 26, 2018, at the direction of the Transactions Committee with the assistance of Edge management, representatives of Piper Jaffray contacted those 76 parties regarding their respective interest in a potential transaction with Edge. Of those parties contacted, 39 declined further discussions, and 37 were sent and executed confidential disclosure agreements, or CDAs. PDS received its copy of the form of CDA on May 9, 2018.

The form of confidentiality agreement used with potential counterparties, among other things and subject to certain exceptions, required potential counterparties to agree to preserve the confidentiality of any information about Edge received during discussions with Piper Jaffray and Edge and to not make any proposal regarding a potential acquisition of Edge, other than a confidential proposal made at the request of the Edge Board (a so-called "standstill" provision), for two (2) years after the date the potential counterparty signed the confidentiality agreement. While the exact terms of the confidentiality agreement were separately negotiated with each potential counterparty and differed from what was presented in the initial draft, the standstill provision in the confidentiality agreement, which, among other things, prohibited each participant in the process from making any public disclosure, or taking any action, including requesting a waiver or modification of any provision of the standstill provision, that could require Edge to make any public disclosure with regard to a proposed transaction, did not differ materially from what was presented in the form. These provisions in the confidentiality agreement were intended to encourage the potential counterparties to put forth their highest offer in the transaction process being conducted by Edge.

In connection with its review of Strategic Alternatives, the Transactions Committee also authorized representatives of Piper Jaffray to contact potential strategic partners regarding a possible transaction in respect of EG-1962. Such contacts continued throughout the spring and summer of 2018. On July 2, 2018, representatives of Piper Jaffray contacted 14 companies regarding a potential transaction with EG-1962, including

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a sale or out-licensing of the asset. Of the parties that were contacted, two signed CDAs and held discussions with Edge management and representatives of Piper Jaffray regarding EG-1962, including discussing the potential clinical development plan going forward and market opportunity among other topics. Neither party elected to pursue a potential transaction with respect to EG-1962.

On May 9, 2018, the Transactions Committee met with Edge management, and representatives of each of Piper Jaffray and Dechert. During the course of the meeting:

- Representatives of Piper Jaffray outlined the primary Strategic Alternatives that the Transactions Committee and the Edge Board might consider, including a reverse merger, a merger with a public company, acquisition/licensing and liquidation.
- Representatives of Piper Jaffray led a discussion of a possible process and timeline for completing a review of Strategic Alternatives and consummating a transaction.
- Representatives of Piper Jaffray led a discussion of the screening criteria to be used in further evaluating potential transaction partners.
- Representatives of Piper Jaffray led a discussion of a possible engagement protocols between Piper Jaffray, Edge management, the Transactions Committee and the Edge Board in connection with the process for completing a review of Strategic Alternatives and consummating a transaction.
- Representatives of Piper Jaffray reviewed the actions that had been taken to date with respect to potential candidates for a transaction and potential strategic partners regarding a possible transaction in respect of EG-1962.

Between May 14 and July 24, 2018, Edge management and representatives of Piper Jaffray held 35 individual due diligence calls with parties that executed a CDA.

Beginning on May 18, 2018, representatives of Piper Jaffray provided a first-stage process letter to the parties that had executed a CDA (23 as of such date, and 37 overall throughout the process), requesting that such parties return preliminary indications of interest on or before June 8, 2018.

On June 8, 2018 PDS presented a non-binding merger proposal to Edge that reflected a 22.2% Edge / 77.8% PDS equity split.

On June 11, 2018, the Transactions Committee met with members of Edge management and representatives of each of Piper Jaffray and Dechert. During the course of the meeting, representatives of Piper Jaffray led a high-level discussion and analysis of each company that had submitted an indication of interest (a total of 24 companies as of the meeting, including PDS's indication of interest received on June 8) based on criteria that had been previously approved by the Transactions Committee.

On June 13, 2018, the Transactions Committee met with Edge management and representatives of each of Piper Jaffray and Dechert. Representatives of Piper Jaffray led a high-level discussion and analysis of an additional company that had submitted an indication of interest. The Transactions Committee settled on a list of eight companies, including PDS, which would be invited to move to the next phase of the strategic review process.

On June 19, 2018, the Edge Board held a regularly scheduled meeting. At the meeting, representatives of Piper Jaffray and the members of the Transactions Committee led a discussion of the progress on the strategic review process. The Edge Board discussed each of the companies that the Transactions Committee had recommended advancing to the next stage of the strategic review process. During the course of the discussion, certain members of the Edge Board noted that, because of their relationships with certain of the counterparties, they might have a conflict of interest should a transaction be pursued with any such counterparty. None of the counterparties with which certain of the directors had a relationship ended up participating further in later stages of the strategic review process.

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On June 27, 2018, representatives of Piper Jaffray sent process letters to the eight companies that the Transactions Committee authorized to be invited to continue the process.

On June 29, 2018, the Transactions Committee met with members of Edge management and representatives of each of Piper Jaffray and Dechert. Representatives of Piper Jaffray and members of Edge management

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updated the Transactions Committee on its activities. This included noting that the eight companies had been notified of their invitation to continue in the process, recent additional inbound contacts from other potential targets, including Target C, which was also sent a first-stage process letter prior to the meeting. It was also noted that one of the potential targets completed a reverse merger with another party and another filed for an IPO, and as a result, neither would continue in the process with Edge. Following this meeting on June 29, Edge management began conducting additional due diligence with the companies remaining in the process, which included Targets A, B, C, D, E and F, along with PDS.

On July 11, 2018, Dr. Spiegel (a member of the Transactions Committee), a consultant to Edge, members of Edge management and representatives of Piper Jaffray participated in a due diligence session with PDS management.

On July 13, 2018, the Transactions Committee met with members of Edge management and representatives of each of Piper Jaffray and Dechert. A member of the Transactions Committee led a detailed discussion of the results of diligence calls with Target D, Target F and PDS, which members of the Transactions Committee and management had met with in depth over the preceding days. Members of the Transactions Committee, representatives of Piper Jaffray and members of Edge management offered their views on the three companies, as well as areas for further review relating to the companies. Following this meeting, Edge management continued to conduct additional due diligence with the other companies still in the process.

On July 23, 2018, the Transactions Committee met with members of Edge management and representatives of each of Piper Jaffray and Dechert. Members of the Transactions Committee led a detailed discussion of three of the companies that were invited to remain in the process, including Target C, which members of the Transactions Committee and management had met with in depth for the first time over the preceding days. Other than Target D, Target F and PDS, the remaining two invited parties were not discussed as in-depth meetings had not yet been conducted. Members of the Transactions Committee, representatives of Piper Jaffray and members of management offered their views of the pros and cons of the three companies, as well as areas for further review relating to the companies. The Transactions Committee discussed how it would evaluate and how it ranked each of the companies that had made it to this point in the strategic review process, and the status of due diligence with the other two remaining companies in the process was not discussed in detail at this meeting.

On August 1, 2018, Dr. Bedu-Addo provided an email update to Mr. Leuthner regarding various matters relating to PDS and a potential transaction between the parties.

On August 1, 2018, the Transactions Committee met with Edge management and representatives of each of Piper Jaffray and Dechert. A member of the Transactions Committee led a detailed discussion of certain due diligence that had been conducted on Target A at a meeting conducted earlier on that day, with Dr. Spiegel and members of Edge management participating in that due diligence meeting. Representatives of Piper Jaffray led a discussion of a possible reverse merger with Target B. Members of the Transactions Committee, representatives of Piper Jaffray and members of Edge management offered their assessments of the companies in the strategic review process, as well as areas for further review relating to certain of such companies.

On August 14, 2018, the Transactions Committee met with Edge management and representatives of each of Piper Jaffray and Dechert. The Transactions Committee instructed Edge management to prioritize Targets A, B, C and D. The Transactions Committee held a detailed discussion of certain diligence matters relating to Targets A, C and D, as the Transactions Committee learned that Target B decided to pursue an alternate financing transaction. These included regulatory, clinical, compliance, legal, commercialization and manufacturing due diligence matters. Members of the Transactions Committee, representatives of Piper Jaffray and members of Edge management offered their views on the three companies discussed during the meeting, as well as areas for further review relating to such companies.

On August 27, 2018, the Transactions Committee met with Edge management and representatives of each of Piper Jaffray and Dechert. Following a review of activities to date, the Transactions Committee discussed its ranking of each of Targets A, C and D targets relative to the others remaining in the process. The Transactions Committee discussed next steps with members of Edge management and Edge's outside advisors. These steps included sending out a process letter, along with a draft merger agreement, to Targets C and D, as discussions between representatives of each of Piper Jaffray and Target A suggested that pending further diligence, Target A's timelines for development activities would not be favorable for a potential transaction.

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On September 17, 2018, Target C submitted its bid proposal and mark-up of the draft merger agreement. In addition, on or about such date, the Transactions Committee learned that Target D had decided to pursue an alternative financing transaction and, as a result, would not submit a proposal.

On September 20, 2018, the Transactions Committee met with members of Edge management, and representatives of each of Piper Jaffray and Dechert. The Transactions Committee had a detailed discussion of the bid received from Target C. During the course of the discussion, representatives from Piper Jaffray engaged with the Transaction Committee on the methodology, analysis and results of the preliminary financial analyses with respect to Target C that representatives of Piper Jaffray had undertaken. The Transactions Committee also discussed with members of Edge management certain execution risks associated with Target C and discussed certain issues arising from the Target C mark-up of the draft merger agreement with Dechert. The Transactions Committee engaged in a discussion with representatives of Piper Jaffray and management about alternatives to a transaction with Target C. Finally, the Transactions Committee provided guidance to the representatives of Piper Jaffray r